

COLLECTION
of test questions
on surgical diseases

for students of 6 course
of international medical faculty

I-01

1. Omeprazole has been added to the H₂ antagonists as a therapeutic approach to the management of acute gastric and duodenal ulcers. It acts by

- a. Blocking breakdown of mucosaldamaging metabolites of NSAIDs
- b. Providing a direct cytoprotective effect
- c. Buffering gastric acids
- d. Inhibiting parietal cell hydrogenpotassium-ATPase
- e. Inhibiting gastrin release and parietal cell acid production

2.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a "bird's beak" deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

3.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

4.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)

- b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

5.

During an operation for carcinoma of the hepatic flexure of the colon, an unexpected discontinuous 3-cm metastasis is discovered in the edge of the right lobe of the liver. The surgeon should

- a. Terminate the operation, screen the patient for evidence of other metastases, and plan further therapy after the reevaluation
- b. Perform a right hemicolectomy and a right hepatic lobectomy
- c. Perform a right hemicolectomy and a wedge resection of the metastasis
- d. Perform a cecostomy and schedule reoperation after a course of systemic chemotherapy
- e. Perform local resection of the primary colon cancer and plan radiation therapy for the lesion on the liver

6.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant. Correct treatment should consist of

- a. Ileocelectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

7.

Infants with anorectal anomalies tend to have other congenital anomalies. Associated abnormalities include which of the following?

- a. Abnormalities of the cervical spine
- b. Hydrocephalus
- c. Duodenal atresia
- d. Heart disease
- e. Corneal opacities

8.

A previously healthy 9-year-old child comes to the emergency room because of fulminant upper gastrointestinal bleeding. The hemorrhage is most likely to be the result of

- a. Esophageal varices
- b. Mallory-Weiss syndrome
- c. Gastritis
- d. A gastric ulcer
- e. A duodenal ulcer

9.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

10.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

11.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

12.

After complete removal of a sessile polyp of 2.0 ??1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

13.

Which of the following would be expected to stimulate intestinal motility?

- a. Fear
- b. Gastrin
- c. Secretin
- d. Acetylcholine
- e. Cholecystokinin

14.

The most common clinical presentation of idiopathic retroperitoneal fibrosis is

- a. Ureteral obstruction
- b. Leg edema
- c. Calf claudication
- d. Jaundice
- e. Intestinal obstruction

15.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

16.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction

e. Coexistent extrahepatic cysts are uncommon

17.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

18.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital
- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common
- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

19.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

20.

Dieulafoy's lesion of the stomach is characterized by

- a. A large mucosal defect with underlying, friable vascular plexus
- b. Frequent rebleeding after endoscopic treatment
- c. Massive bleeding that requires subtotal gastrectomy
- d. Location in the proximal stomach
- e. Acid-peptic changes of the gastric mucosa

I-02

1.

Evidence that a splenectomy might benefit a patient with immune (idiopathic) thrombocytopenic purpura (ITP) includes

- a. A significant enlargement of the spleen
- b. A high reticulocyte count
- c. Megakaryocytic elements in the bone marrow
- d. An increase in the platelet count on cortisone therapy
- e. Patient age of less than 5 years

2.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to be found?

- a. Villous adenoma
- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

3.

A 55-year-old man complains of chronic intermittent epigastric pain, and gastroscopy demonstrates a 2-cm ulcer of the distal lesser curvature. Endoscopic biopsy yields no malignant tissue. After a 6-wk trial of H₂ blockade and antacid therapy, the ulcer is unchanged. Proper therapy at this point is

- a. Repeat trial of medical therapy
- b. Local excision of the ulcer
- c. Billroth I partial gastrectomy
- d. Billroth I partial gastrectomy with vagotomy
- e. Vagotomy and pyloroplasty

4.

A 42-year-old man with no history of use of nonsteroidal anti-inflammatory drugs (NSAIDs) presents with recurrent gastritis. Infection with *Helicobacter pylori* is suspected. Which of the following statements is true?

- a. Morphologically, the bacteria is a gram-positive, tennis-racket-shaped organism
- b. Diagnosis can be made by serologic testing or urea breath tests

- c. Diagnosis is most routinely achieved via culturing endoscopic scrapings
- d. The most effective way to treat and prevent recurrence of this patient's gastritis is through the use of single drug therapy aimed at eradicating *H. pylori*
- e. The organism is easily eradicated

5.

Which of the following colonic pathologies is thought to have no malignant potential?

- a. Ulcerative colitis
- b. Villous adenomas
- c. Familial polyposis
- d. Peutz-Jeghers syndrome
- e. Crohn's colitis

6.

A 36-h-old infant presents with bilious vomiting and an increasingly distended abdomen. At exploration the segment below is found as the point of obstruction. Which of the following statements regarding this finding is true?

- a. Resection with primary anastomosis should not be performed
- b. Gentle, persistent traction on the specimen usually corrects the defect and removes the need for a resection
- c. The lesion is much more common in the jejunum than in the ileum in this age group
- d. This problem is probably related to mesenteric vascular insufficiency
- e. A properly monitored barium enema might have corrected this defect and removed the need for an operation

7.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the

pancreas

8.

A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is

- a. Choledochoplasty with insertion of a T tube
- b. End-to-end choledochocholedochal anastomosis
- c. Roux-en-Y choledochojejunostomy
- d. Percutaneous transhepatic dilatation
- e. Choledochoduodenostomy

9.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. Another 30-year-old man with the identical clinical situation presented in the previous question is being considered for surgery. His serum gastrin level, however, is 150 _ 10 pg/mL on three determinations. The surgeon should perform

- a. An arteriogram
- b. A secretin stimulation test
- c. A total gastrectomy
- d. A subtotal gastrectomy
- e. A highly selective vagotomy

10.

A 50-year-old man presents to the emergency room with a 6-h history of excruciating abdominal pain and distention. The abdominal film shown below is obtained. The next diagnostic maneuver should be

- a. Emergency celiotomy
- b. Upper gastrointestinal series with small-bowel follow-through
- c. CT scan of the abdomen
- d. Barium enema
- e. Sigmoidoscopy

11.

On Monday morning, a septuagenarian man has a moderate-sized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- Decompression of the large bowel via colonoscopy
- Replacement of the nasogastric tube and administration of low-dose cholinergic drugs
- Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- Immediate return to the operating room for operative decompression by transverse colostomy
- Right hemicolectomy

12.

True statements regarding hemobilia include which of the following?

- The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

13.

Which statement regarding adenocarcinoma of the pancreas is true?

- It occurs most frequently in the body of the gland
- It carries a 1–2% 5-year survival rate
- It is nonresectable if it presents as painless jaundice
- It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- It is associated with diabetes insipidus

14.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix. Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

15.

An 88-year-old man with a history of end-stage renal failure, severe coronary artery disease, and brain metastases from lung cancer presents with acute cholecystitis. His family wants “everything done.” The best management option in this patient would be

- a. Tube cholecystostomy
- b. Open cholecystectomy
- c. Laparoscopic cholecystectomy
- d. Intravenous antibiotics followed by elective cholecystectomy
- e. Lithotripsy followed by long-term bile acid therapy

16.

Correct statements regarding rectal carcinoid tumors include

- a. Endoscopic resection is sufficient for tumors smaller than 2 cm
- b. Patients frequently present with the carcinoid syndrome
- c. They are rapidly growing tumors
- d. Local recurrence is rare with complete resection of the primary lesion
- e. They can develop the carcinoid syndrome even in the absence of liver metastases

17.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria

- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

18.

A 46-year-old patient with gastric outlet obstruction secondary to ulcer disease and severe inflammation around the pylorus and first and second portions of the duodenum

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

19.

The most common congenital diaphragmatic hernia in infants

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

20.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

I-03

1.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

2.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst
- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

3.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements regarding pancreatic carcinoma is true?

- a. The majority of cases present with jaundice alone
- b. CT scan, angiography, and laparoscopy have been unsuccessful in predicting resectability
- c. If a patient is jaundiced, the resectability rate is less than 5%
- d. 99% of patients with pancreatic cancer have metastatic disease at the time of diagnosis
- e. The 5-year survival rate after a Whipple procedure (pancreaticoduodenectomy) performed for cure is 30–40%

4.

A 60-year-old male alcoholic is admitted to the hospital with

hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. A diagnosis of bleeding esophageal varices is made in this patient.

Appropriate initial therapy would be

- a. Intravenous vasopressin
- b. Endoscopic sclerotherapy
- c. Emergency portacaval shunt
- d. Emergency esophageal transection
- e. Esophageal balloon tamponade

5.

A spry octogenarian who has never before been hospitalized is admitted with signs and symptoms typical of a small bowel obstruction. Which of the following clinical findings would give the most help in ascertaining the diagnosis?

- a. Coffee-grounds aspirate from the stomach
- b. Aerobilia
- c. A leukocyte count of 40,000/ μ L
- d. A pH of 7.5, PCO₂ of 50 kPa, and paradoxically acid urine
- e. A palpable mass in the pelvis

6.

In determining the proper treatment for a sliding hiatal hernia, the most useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

7.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon

e. The role of the ileocecal valve in normal fluid homeostasis is well established

8.

A 55-year-old man who is extremely obese reports weakness, sweating, tachycardia, confusion, and headache whenever he fasts for more than a few hours. He has prompt relief of symptoms when he eats. These symptoms are most suggestive of which of the following disorders?

- a. Diabetes mellitus
- b. Insulinoma
- c. Zollinger-Ellison syndrome
- d. Carcinoid syndrome
- e. Multiple endocrine neoplasia, type II

9.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an "apple core" configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

10.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Which of the following statements is true about this patient?

- a. The inflammatory process is likely to be confined to the mucosa and submucosa
- b. The inflammatory reaction is likely to be continuous
- c. Superficial as opposed to linear ulcerations can be expected
- d. Noncaseating granulomata can be expected in up to 50% of patients with similar disease
- e. Microabscesses within crypts are common

11.

Correct statements concerning intussusception in infants include which of the following?

- a. Recurrence rates following treatment are high
- b. It is frequently preceded by a gastrointestinal viral illness
- c. A 1- to 2-wk period of parenteral alimentation should precede surgical reduction when surgery is required
- d. Hydrostatic reduction without surgery rarely provides successful treatment
- e. The most common type occurs at the junction of the descending colon and sigmoid colon

12.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

13.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to be a carcinoid tumor. Which of the following statements is true?

- a. No further surgery is indicated
- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

14.

True statements regarding cavernous hemangiomas of the liver in adults include

- a. The majority become symptomatic
- b. They may undergo malignant transformation
- c. They enlarge under hormonal stimulation
- d. They should be resected to avoid spontaneous rupture and life-threatening hemorrhage

e. A liver/spleen radionucleotide scan is the most sensitive and specific way to make the diagnosis

15.

A 90-year-old patient with a bleeding duodenal ulcer

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

16.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an abdominal mass, and jaundice
- d. Cystic dilation of the intrahepatic biliary tree may coexist and is managed in a similar fashion
- e. Surgery should be reserved for symptomatic patients

17.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

18.

A 55-year-old woman with cancer of the cervix undergoes hysterectomy and is found to have pelvic lymph nodes involved with cancer. She then receives a course of external beam radiation (4500 rads). When the physician counsels her prior to her radiation treatment, she should be told of all the possible complications of radiation enteritis. Which of the following is generally not associated with radiation injury?

- a. Malabsorption
- b. Intussusception
- c. Ulceration
- d. Fistulization
- e. Perforation

19.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

20.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

I-04

1.

Which of the following statements concerning imperforate anus is true?

- a. Imperforate anus affects males more frequently than females
- b. In 90% of males, but only 50% of females, the rectum ends below the level of the levator ani complex
- c. The rectum usually ends in a blind pouch
- d. The chance for eventual continence is greater when the rectum has descended to below the levator animuscles
- e. Immediate definitive repair of the anatomic defect is required to maximize the chance of eventual continence

2.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

3.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

4.

Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4?

- a. Umbilical hernia
- b. Patent urachus
- c. Patent omphalomesenteric duct
- d. Omphalocele
- e. Gastroschisis

5.

Which of the following statements regarding the etiology of obstructive jaundice is true?

- a. A markedly elevated SGOT and SGPT are usually associated with obstructive jaundice
- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
- c. A Klatskin tumor will result in extrahepatic ductal dilation only
- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
- e. Carcinoma of the head of the pancreas can cause deep epigastric or back pain in as many as 80% of patients

6.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

7.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. The patient should be told that the operation of choice is

- a. Vagotomy and pyloroplasty
- b. Highly selective vagotomy and tumor resection
- c. Subtotal gastrectomy
- d. Total gastrectomy
- e. Partial pancreatectomy

8.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. Campylobacter
- b. Cytomegalovirus
- c. Helicobacter
- d. Mycobacterium avium-intracellulare
- e. Yersinia enterocolitica

9.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy
- e. Detorsion of the volvulus and colopexy or resection

10.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is Staphylococcus aureus
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

11.

Indications for surgical removal of polypoid lesions of the gallbladder include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years
- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

12.

Correct statements regarding carcinoembryonic antigen (CEA) and colorectal tumors include which of the following?

- a. Elevated CEA is indicative of a tumor of gastrointestinal origin
- b. A low CEA level after resection of a colon tumor is a poor marker of

disease control

- c. Ninety percent of colorectal tumors produce CEA
- d. There is a high likelihood of liver involvement if the CEA level is high (greater than 100 ng/mL)
- e. CEA levels are unusually low in cigarette smokers

13.

The hernia most likely to cause acute respiratory distress in infants
Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

14.

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

15.

Which of the following statements concerning Hirschsprung's disease is true?

- a. It is initially treated by colostomy
- b. It is best diagnosed in the newborn period by barium enema
- c. It is characterized by the absence of ganglion cells in the transverse colon
- d. It is associated with a high incidence of genitourinary tract anomalies
- e. It is the congenital disease that most commonly leads to subsequent fecal incontinence

16.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis

- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

17.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for celiotomy during pregnancy
- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed with a period of observation of due to the risks of laparotomy to the fetus
- d. Noncomplicated appendicitis results in a 20% fetal mortality and premature labor rate
- e. The severity of appendicitis correlates with increased gestational age of the fetus

18.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal \square 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

- a. The mass may cause gastric outlet or extrahepatic biliary obstruction
- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining
- e. Malignant degeneration occurs in about 25% of cases if left untreated

19.

A patient who has a total pancreatectomy might be expected to develop which of the following complications?

- a. Diabetes mellitus
- b. Hypercalcemia
- c. Hyperphosphatemia
- d. Constipation

e. Weight gain

20.

A 72-year-old patient with an intractable type I ulcer along the incisura with a significant amount of scarring along the entire length of the lesser curvature. Select the appropriate surgical procedure.

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

I-05

1. A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood.

After initial resuscitation, this man should undergo

- a. Esophageal balloon tamponade
- b. Barium swallow
- c. Selective angiography
- d. Esophagogastroscope
- e. Exploratory celiotomy

2.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath
- d. Torsion of an ovarian cyst
- e. Cholecystitis

3.

Intragastric pressure remains steady near 2–5 mm Hg during slow gastric filling, but rises rapidly to high levels after reaching a volume of

- a. 400–600 mL
- b. 700–900 mL
- c. 1000–1200 mL
- d. 1300–1500 mL
- e. 1600–1800 mL

4.

In planning the management of a 2.8-cm epidermoid carcinoma of the anus, the first therapeutic approach should be

- a. Abdominoperineal resection
- b. Wide local resection with bilateringuinal node dissection

- c. Local radiation therapy
- d. Systemic chemotherapy
- e. Combined radiation therapy and chemotherapy

5.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Regarding potential complications in this patient, which of the following statements is true?

- a. The occurrence of toxic megacolon is common
- b. Perforation occurs in about 25% of patients with similar disease
- c. Fistulas between the colon and segments of intestine, bladder, vagina, urethra, and skin may develop
- d. Extraintestinal manifestations including uveitis and erythema nodosum would be exceedingly rare in this patient
- e. This patient would be at no increased risk for the development of cancer of the colon as compared with an age-matched population

6.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

7.

Evidence that a splenectomy might benefit a patient with immune (idiopathic) thrombocytopenic purpura (ITP) includes

- a. A significant enlargement of the spleen
- b. A high reticulocyte count
- c. Megakaryocytic elements in the bone marrow
- d. An increase in the platelet count on cortisone therapy
- e. Patient age of less than 5 years

8.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a "bird's beak" deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical

intervention

- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

9.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to be found?

- a. Villous adenoma
- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

10.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

11.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

12.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of

previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant. Correct treatment should consist of

- a. Ileocectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

13.

In determining the proper treatment for a sliding hiatal hernia, the most useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

14.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

15.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

16.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

17.

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

18.

The most common clinical presentation of idiopathic retroperitoneal fibrosis is

- a. Ureteral obstruction
- b. Leg edema
- c. Calf claudication
- d. Jaundice
- e. Intestinal obstruction

19.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

20.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital

- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common
- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

I-06

1.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

2.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

3.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

4.

A 55-year-old man complains of chronic intermittent epigastric pain, and gastroscopy demonstrates a 2-cm ulcer of the distal lesser curvature. Endoscopic biopsy yields no malignant tissue. After a 6-wk

trial of H2 blockade and antacid therapy, the ulcer is unchanged.

Proper therapy at this point is

- a. Repeat trial of medical therapy
- b. Local excision of the ulcer
- c. Billroth I partial gastrectomy
- d. Billroth I partial gastrectomy with vagotomy
- e. Vagotomy and pyloroplasty

5.

During an operation for carcinoma of the hepatic flexure of the colon, an unexpected discontinuous 3-cm metastasis is discovered in the edge of the right lobe of the liver. The surgeon should

- a. Terminate the operation, screen the patient for evidence of other metastases, and plan further therapy after the reevaluation
- b. Perform a right hemicolectomy and a right hepatic lobectomy
- c. Perform a right hemicolectomy and a wedge resection of the metastasis
- d. Perform a cecostomy and schedule reoperation after a course of systemic chemotherapy
- e. Perform local resection of the primary colon cancer and plan radiation therapy for the lesion on the liver

6.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

7.

A spry octogenarian who has never before been hospitalized is admitted with signs and symptoms typical of a small bowel obstruction. Which of the following clinical findings would give the most help in ascertaining the diagnosis?

- a. Coffee-grounds aspirate from the stomach
- b. Aerobilia
- c. A leukocyte count of 40,000/ μ L
- d. A pH of 7.5, PCO₂ of 50 kPa, and paradoxically acid urine
- e. A palpable mass in the pelvis

8.

Which of the following colonic pathologies is thought to have no malignant potential?

- a. Ulcerative colitis
- b. Villous adenomas
- c. Familial polyposis
- d. Peutz-Jeghers syndrome
- e. Crohn's colitis

9.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant.

Correct treatment should consist of

- a. Ileocelectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

10.

Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4?

- a. Umbilical hernia
- b. Patent urachus
- c. Patent omphalomesenteric duct
- d. Omphalocele
- e. Gastroschisis

11.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath

- d. Torsion of an ovarian cyst
- e. Cholecystitis

12.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

13.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

14.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

15.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to

be a carcinoid tumor. Which of the following statements is true?

- a. No further surgery is indicated
- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

16.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

17.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

18.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix.

Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma

e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

19.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

20.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

I-07

1.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for celiotomy during pregnancy
- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed with a period of observation of due to the risks of laparotomy to the fetus
- d. Noncomplicated appendicitis results in a 20% fetal mortality and premature labor rate
- e. The severity of appendicitis correlates with increased gestational age of the fetus

2.

On Monday morning, a septuagenarian man has a moderatesized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- a. Decompression of the large bowel via colonoscopy
- b. Replacement of the nasogastric tube and administration of lowdose cholinergic drugs
- c. Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- d. Immediate return to the operating room for operative decompression by transverse colostomy
- e. Right hemicolectomy

3.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. *Campylobacter*
- b. Cytomegalovirus
- c. *Helicobacter*
- d. *Mycobacterium avium-intracellulare*
- e. *Yersinia enterocolitica*

4.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

5.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an “apple core” configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

6.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. The patient should be told that the operation of choice is

- a. Vagotomy and pyloroplasty
- b. Highly selective vagotomy and tumor resection
- c. Subtotal gastrectomy
- d. Total gastrectomy
- e. Partial pancreatectomy

7.

Which of the following would be expected to stimulate intestinal motility?

- a. Fear
- b. Gastrin
- c. Secretin
- d. Acetylcholine
- e. Cholecystokinin

8.

A previously healthy 15-year-old boy is brought to the emergency room

with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

9.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
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Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

11.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

12.

In determining the proper treatment for a sliding hiatal hernia, the most useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

13.

A 36-h-old infant presents with bilious vomiting and an increasingly distended abdomen. At exploration the segment below is found as the point of obstruction. Which of the following statements regarding this finding is true?

- a. Resection with primary anastomosis should not be performed
- b. Gentle, persistent traction on the specimen usually corrects the defect and removes the need for a resection
- c. The lesion is much more common in the jejunum than in the ileum in this age group
- d. This problem is probably related to mesenteric vascular insufficiency
- e. A properly monitored barium enema might have corrected this defect and removed the need for an operation

14.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

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A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

I-08

1.

Which of the following statements concerning Hirschsprung's disease is true?

- a. It is initially treated by colostomy
- b. It is best diagnosed in the newborn period by barium enema
- c. It is characterized by the absence of ganglion cells in the transverse colon
- d. It is associated with a high incidence of genitourinary tract anomalies
- e. It is the congenital disease that most commonly leads to subsequent fecal incontinence

2.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath
- d. Torsion of an ovarian cyst
- e. Cholecystitis

3.

Which of the following colonic pathologies is thought to have no malignant potential?

- a. Ulcerative colitis
- b. Villous adenomas
- c. Familial polyposis
- d. Peutz-Jeghers syndrome
- e. Crohn's colitis

4.

Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4?

- a. Umbilical hernia

- b. Patent urachus
- c. Patent omphalomesenteric duct
- d. Omphalocele
- e. Gastroschisis

5.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

6.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant.

Correct treatment should consist of

- a. Ileocelectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

7.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to be a carcinoid tumor. Which of the following statements is true?

- a. No further surgery is indicated
- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

8.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

9.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

10.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

11.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. *Campylobacter*
- b. Cytomegalovirus
- c. *Helicobacter*

- d. *Mycobacterium avium-intracellulare*
- e. *Yersinia enterocolitica*

12.

Which of the following colonic pathologies is thought to have no malignant potential?

- a. Ulcerative colitis
- b. Villous adenomas
- c. Familial polyposis
- d. Peutz-Jeghers syndrome
- e. Crohn's colitis

13.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

14.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix.

Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

15.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

16.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

17.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an “apple core” configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

18.

Indications for operation in Crohn’s disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

19.

In determining the proper treatment for a sliding hiatal hernia, the most

useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

20.

A 36-h-old infant presents with bilious vomiting and an increasingly distended abdomen. At exploration the segment below is found as the point of obstruction. Which of the following statements regarding this finding is true?

- a. Resection with primary anastomosis should not be performed
- b. Gentle, persistent traction on the specimen usually corrects the defect and removes the need for a resection
- c. The lesion is much more common in the jejunum than in the ileum in this age group
- d. This problem is probably related to mesenteric vascular insufficiency
- e. A properly monitored barium enema might have corrected this defect and removed the need for an operation

I-09

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A congenital hernia that is most frequently discovered as an incidental finding in adults

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- b. Paraesophageal hiatal hernia
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A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix.

Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

7.

A 46-year-old patient with gastric outlet obstruction secondary to ulcer disease and severe inflammation around the pylorus and first and second portions of the duodenum

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

8.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa

- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

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- a. No further surgery is indicated
- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

11.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

12.

A spry octogenarian who has never before been hospitalized is admitted with signs and symptoms typical of a small bowel obstruction. Which of the following clinical findings would give the most help in ascertaining the diagnosis?

- a. Coffee-grounds aspirate from the stomach
- b. Aerobilia
- c. A leukocyte count of 40,000/ μ L
- d. A pH of 7.5, PCO₂ of 50 kPa, and paradoxically acid urine
- e. A palpable mass in the pelvis

13.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

14.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

15.

During an operation for carcinoma of the hepatic flexure of the colon, an unexpected discontinuous 3-cm metastasis is discovered in the edge of the right lobe of the liver. The surgeon should

- a. Terminate the operation, screen the patient for evidence of other metastases, and plan further therapy after the reevaluation
- b. Perform a right hemicolectomy and a right hepatic lobectomy
- c. Perform a right hemicolectomy and a wedge resection of the metastasis
- d. Perform a cecostomy and schedule reoperation after a course of systemic chemotherapy
- e. Perform local resection of the primary colon cancer and plan radiation therapy for the lesion on the liver

16.

A 55-year-old man complains of chronic intermittent epigastric pain, and gastroscopy demonstrates a 2-cm ulcer of the distal lesser curvature. Endoscopic biopsy yields no malignant tissue. After a 6-wk trial of H₂ blockade and antacid therapy, the ulcer is unchanged.

Proper therapy at this point is

- a. Repeat trial of medical therapy
- b. Local excision of the ulcer
- c. Billroth I partial gastrectomy
- d. Billroth I partial gastrectomy with vagotomy
- e. Vagotomy and pyloroplasty

17.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

18.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

19.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for celiotomy during pregnancy

- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed with a period of observation of due to the risks of laparotomy to the fetus
- d. Noncomplicated appendicitis results in a 20% fetal mortality and premature labor rate
- e. The severity of appendicitis correlates with increased gestational age of the fetus

20.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

I-10

1.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

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- a. Vagotomy and antrectomy
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4.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a

causative
role

- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

5.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

6.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix.

Which of the following statements is true?

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- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

7.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate

- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

8.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

9.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

10.

Which of the following would be expected to stimulate intestinal motility?

- a. Fear
- b. Gastrin
- c. Secretin
- d. Acetylcholine
- e. Cholecystokinin

11.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for celiotomy during pregnancy
- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed with a period of observation of due to the risks of laparotomy to the fetus
- d. Noncomplicated appendicitis results in a 20% fetal mortality and

premature labor rate

e. The severity of appendicitis correlates with increased gestational age of the fetus

12.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

13.

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- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

14.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. *Campylobacter*
- b. Cytomegalovirus
- c. *Helicobacter*
- d. *Mycobacterium avium-intracellulare*
- e. *Yersinia enterocolitica*

15.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia

- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

16.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. The patient should be told that the operation of choice is

- a. Vagotomy and pyloroplasty
- b. Highly selective vagotomy and tumor resection
- c. Subtotal gastrectomy
- d. Total gastrectomy
- e. Partial pancreatectomy

17.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

18.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

19.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. Another 30-year-old man with the identical clinical situation presented in the previous question is being considered for surgery. His serum gastrin level, however, is 150 _ 10 pg/mL on three determinations. The surgeon should perform

- a. An arteriogram
- b. A secretin stimulation test
- c. A total gastrectomy
- d. A subtotal gastrectomy
- e. A highly selective vagotomy

20.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an “apple core” configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

II-01

1.

Omeprazole has been added to the H₂ antagonists as a therapeutic approach to the management of acute gastric and duodenal ulcers. It acts by

- a. Blocking breakdown of mucosaldamaging metabolites of NSAIDs
- b. Providing a direct cytoprotective effect
- c. Buffering gastric acids
- d. Inhibiting parietal cell hydrogenpotassium-ATPase
- e. Inhibiting gastrin release and parietal cell acid production

2.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

3.

Which of the following statements concerning imperforate anus is true?

- a. Imperforate anus affects males more frequently than females
- b. In 90% of males, but only 50% of females, the rectum ends below the level of the levator ani complex
- c. The rectum usually ends in a blind pouch
- d. The chance for eventual continence is greater when the rectum has descended to below the levator animuscles
- e. Immediate definitive repair of the anatomic defect is required to maximize the chance of eventual continence

4.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of

the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

5.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

6.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

7.

A 55-year-old man complains of chronic intermittent epigastric pain, and gastroscopy demonstrates a 2-cm ulcer of the distal lesser curvature. Endoscopic biopsy yields no malignant tissue. After a 6-wk trial of H₂ blockade and antacid therapy, the ulcer is unchanged. Proper therapy at this point is

- a. Repeat trial of medical therapy
- b. Local excision of the ulcer
- c. Billroth I partial gastrectomy
- d. Billroth I partial gastrectomy with vagotomy
- e. Vagotomy and pyloroplasty

8.

A 60-year-old male alcoholic is admitted to the hospital with

hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. A diagnosis of bleeding esophageal varices is made in this patient. Appropriate initial therapy would be

- a. Intravenous vasopressin
- b. Endoscopic sclerotherapy
- c. Emergency portacaval shunt
- d. Emergency esophageal transection
- e. Esophageal balloon tamponade

9.

A 42-year-old man with no history of use of nonsteroidal anti-inflammatory drugs (NSAIDs) presents with recurrent gastritis. Infection with *Helicobacter pylori* is suspected. Which of the following statements is true?

- a. Morphologically, the bacteria is a gram-positive, tennis-racket-shaped organism
- b. Diagnosis can be made by serologic testing or urea breath tests
- c. Diagnosis is most routinely achieved via culturing endoscopic scrapings
- d. The most effective way to treat and prevent recurrence of this patient's gastritis is through the use of singledrug therapy aimed at eradicating *H. pylori*
- e. The organism is easily eradicated

10.

A spry octogenarian who has never before been hospitalized is admitted with signs and symptoms typical of a small bowel obstruction. Which of the following clinical findings would give the most help in ascertaining the diagnosis?

- a. Coffee-grounds aspirate from the stomach
- b. Aerobilia
- c. A leukocyte count of 40,000/ μ L
- d. A pH of 7.5, PCO₂ of 50 kPa, and paradoxically acid urine
- e. A palpable mass in the pelvis

11.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant.

Correct treatment should consist of

- a. Ileocelectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

12.

Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4?

- a. Umbilical hernia
- b. Patent urachus
- c. Patent omphalomesenteric duct
- d. Omphalocele
- e. Gastroschisis

13.

Infants with anorectal anomalies tend to have other congenital anomalies. Associated abnormalities include which of the following?

- a. Abnormalities of the cervical spine
- b. Hydrocephalus
- c. Duodenal atresia
- d. Heart disease
- e. Corneal opacities

14.

A 36-h-old infant presents with bilious vomiting and an increasingly distended abdomen. At exploration the segment below is found as the point of obstruction. Which of the following statements regarding this finding is true?

- a. Resection with primary anastomosis should not be performed
- b. Gentle, persistent traction on the specimen usually corrects the defect and removes the need for a resection
- c. The lesion is much more common in the jejunum than in the ileum in this age group
- d. This problem is probably related to mesenteric vascular insufficiency
- e. A properly monitored barium enema might have corrected this defect and removed the need for an operation

15.

Which of the following statements regarding the etiology of obstructive jaundice is true?

- a. A markedly elevated SGOT and SGPT are usually associated with obstructive jaundice
- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
- c. A Klatskin tumor will result in extrahepatic ductal dilation only
- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
- e. Carcinoma of the head of the pancreas can cause deep epigastric or back pain in as many as 80% of patients

16.

Intragastric pressure remains steady near 2–5 mm Hg during slow gastric filling, but rises rapidly to high levels after reaching a volume of

- a. 400–600 mL
- b. 700–900 mL
- c. 1000–1200 mL
- d. 1300–1500 mL
- e. 1600–1800 mL

17.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

18.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

19.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy

- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

20.

A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is

- a. Choledochoplasty with insertion of a T tube
- b. End-to-end choledochocholedochal anastomosis
- c. Roux-en-Y choledochojejunostomy
- d. Percutaneous transhepatic dilatation
- e. Choledochoduodenostomy

II-02

1.

Evidence that a splenectomy might benefit a patient with immune (idiopathic) thrombocytopenic purpura (ITP) includes

- a. A significant enlargement of the spleen
- b. A high reticulocyte count
- c. Megakaryocytic elements in the bone marrow
- d. An increase in the platelet count on cortisone therapy
- e. Patient age of less than 5 years

2.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst
- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

3.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements regarding pancreatic carcinoma is true?

- a. The majority of cases present with jaundice alone
- b. CT scan, angiography, and laparoscopy have been unsuccessful in predicting resectability
- c. If a patient is jaundiced, the resectability rate is less than 5%
- d. 99% of patients with pancreatic cancer have metastatic disease at the time of diagnosis
- e. The 5-year survival rate after a Whipple procedure (pancreaticoduodenectomy) performed for cure is 30–40%

4. A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood.

After initial resuscitation, this man should undergo

- a. Esophageal balloon tamponade
- b. Barium swallow
- c. Selective angiography
- d. Esophagogastroscopy

e. Exploratory celiotomy

5.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

6.

Which of the following statements concerning Hirschsprung's disease is true?

- a. It is initially treated by colostomy
- b. It is best diagnosed in the newborn period by barium enema
- c. It is characterized by the absence of ganglion cells in the transverse colon
- d. It is associated with a high incidence of genitourinary tract anomalies
- e. It is the congenital disease that most commonly leads to subsequent fecal incontinence

7.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath
- d. Torsion of an ovarian cyst
- e. Cholecystitis

8.

A previously healthy 9-year-old child comes to the emergency room because of fulminant upper gastrointestinal bleeding. The hemorrhage is most likely to be the result of

- a. Esophageal varices
- b. Mallory-Weiss syndrome
- c. Gastritis
- d. A gastric ulcer
- e. A duodenal ulcer

9.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

10.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

11.

A 55-year-old woman with cancer of the cervix undergoes hysterectomy and is found to have pelvic lymph nodes involved with cancer. She then receives a course of external beam radiation (4500 rads). When the physician counsels her prior to her radiation treatment, she should be told of all the possible complications of

radiation enteritis. Which of the following is generally not associated with radiation injury?

- a. Malabsorption
- b. Intussusception
- c. Ulceration
- d. Fistulization
- e. Perforation

12.

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

13.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. Another 30-year-old man with the identical clinical situation presented in the previous question is being considered for surgery. His serum gastrin level, however, is 150 _ 10 pg/mL on three determinations. The surgeon should perform

- a. An arteriogram
- b. A secretin stimulation test
- c. A total gastrectomy
- d. A subtotal gastrectomy
- e. A highly selective vagotomy

14.

A 55-year-old man who is extremely obese reports weakness, sweating, tachycardia, confusion, and headache whenever he fasts for more than a few hours. He has prompt relief of symptoms when he eats. These symptoms are most suggestive of which of the following disorders?

- a. Diabetes mellitus
- b. Insulinoma
- c. Zollinger-Ellison syndrome
- d. Carcinoid syndrome
- e. Multiple endocrine neoplasia, type II

15.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an “apple core” configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

16.

A 50-year-old man presents to the emergency room with a 6-h history of excruciating abdominal pain and distention. The abdominal film shown below is obtained. The next diagnostic maneuver should be

- a. Emergency celiotomy
- b. Upper gastrointestinal series with small-bowel follow-through
- c. CT scan of the abdomen
- d. Barium enema
- e. Sigmoidoscopy

17.

On Monday morning, a septuagenarian man has a moderate-sized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- a. Decompression of the large bowel via colonoscopy
- b. Replacement of the nasogastric tube and administration of low-dose cholinergic drugs
- c. Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- d. Immediate return to the operating room for operative decompression by transverse colostomy
- e. Right hemicolectomy

18.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for

celiotomy during pregnancy

- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed with a period of observation of due to the risks of laparotomy to the fetus
- d. Noncomplicated appendicitis results in a 20% fetal mortality and premature labor rate
- e. The severity of appendicitis correlates with increased gestational age of the fetus

19.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy
- e. Detorsion of the volvulus and colopexy or resection

20.

True statements regarding hemobilia include which of the following?

- a. The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- b. Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

II-03

1.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a “bird’s beak” deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

2.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to be found?

- a. Villous adenoma
- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

3.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)
- b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

4.

Which of the following colonic pathologies is thought to have no malignant potential?

- a. Ulcerative colitis
- b. Villous adenomas
- c. Familial polyposis
- d. Peutz-Jeghers syndrome
- e. Crohn's colitis

5.

In determining the proper treatment for a sliding hiatal hernia, the most useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

6.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

7.

Which of the following would be expected to stimulate intestinal motility?

- a. Fear
- b. Gastrin
- c. Secretin
- d. Acetylcholine
- e. Cholecystokinin

8.

The most common clinical presentation of idiopathic retroperitoneal

fibrosis is

- a. Ureteral obstruction
- b. Leg edema
- c. Calf claudication
- d. Jaundice
- e. Intestinal obstruction

9.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

10.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction
- e. Coexistent extrahepatic cysts are uncommon

11.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

12.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Regarding potential complications in this patient, which of the following statements is true?

- a. The occurrence of toxic megacolon is common

- b. Perforation occurs in about 25% of patients with similar disease
- c. Fistulas between the colon and segments of intestine, bladder, vagina, urethra, and skin may develop
- d. Extraintestinal manifestations including uveitis and erythema nodosum would be exceedingly rare in this patient
- e. This patient would be at no increased risk for the development of cancer of the colon as compared with an age-matched population

13.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

14.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix. Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

15.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an

abdominal mass, and jaundice

d. Cystic dilation of the intrahepatic biliary tree may coexist and is managed in a similar fashion

e. Surgery should be reserved for symptomatic patients

16.

Which statement concerning cholangitis is correct?

a. The most common infecting organism is *Staphylococcus aureus*

b. The diagnosis is suggested by the Charcot triad

c. The disease occurs primarily in young, immunocompromised patients

d. Cholecystostomy is the procedure of choice in affected patients

e. Surgery is indicated once the diagnosis of cholangitis is made

17.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal \square 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

a. The mass may cause gastric outlet or extrahepatic biliary obstruction

b. Spontaneous resolution almost never occurs

c. The mass is seen only with acute pancreatitis

d. The mass has an epithelial lining

e. Malignant degeneration occurs in about 25% of cases if left untreated

18.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to be a carcinoid tumor. Which of the following statements is true?

a. No further surgery is indicated

b. A right hemicolectomy should be performed

c. There is about a 50% chance that this patient will develop the carcinoid syndrome

d. Carcinoid tumors arise from islet cells

e. Carcinoid syndrome can occur only in the presence of liver metastases

19.

Indications for surgical removal of polypoid lesions of the gallbladder include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years
- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

20.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

II-04

1.

During an operation for carcinoma of the hepatic flexure of the colon, an unexpected discontinuous 3-cm metastasis is discovered in the edge of the right lobe of the liver. The surgeon should

- a. Terminate the operation, screen the patient for evidence of other metastases, and plan further therapy after the reevaluation
- b. Perform a right hemicolectomy and a right hepatic lobectomy
- c. Perform a right hemicolectomy and a wedge resection of the metastasis
- d. Perform a cecostomy and schedule reoperation after a course of systemic chemotherapy
- e. Perform local resection of the primary colon cancer and plan radiation therapy for the lesion on the liver

2.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

3.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. The patient should be told that the operation of choice is

- a. Vagotomy and pyloroplasty
- b. Highly selective vagotomy and tumor resection
- c. Subtotal gastrectomy
- d. Total gastrectomy
- e. Partial pancreatectomy

4.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. Campylobacter
- b. Cytomegalovirus
- c. Helicobacter
- d. Mycobacterium avium-intracellulare
- e. Yersinia enterocolitica

5.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Which of the following statements is true about this patient?

- a. The inflammatory process is likely to be confined to the mucosa and submucosa
- b. The inflammatory reaction is likely to be continuous
- c. Superficial as opposed to linear ulcerations can be expected
- d. Noncaseating granulomata can be expected in up to 50% of patients with similar disease
- e. Microabscesses within crypts are common

6.

Correct statements concerning intussusception in infants include which of the following?

- a. Recurrence rates following treatment are high
- b. It is frequently preceded by a gastrointestinal viral illness
- c. A 1- to 2-wk period of parenteral alimentation should precede surgical reduction when surgery is required
- d. Hydrostatic reduction without surgery rarely provides successful treatment
- e. The most common type occurs at the junction of the descending colon and sigmoid colon

7.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason

does not occur following major surgery, trauma, or burns

8.

Dieulafoy's lesion of the stomach is characterized by

- a. A large mucosal defect with underlying, friable vascular plexus
- b. Frequent rebleeding after endoscopic treatment
- c. Massive bleeding that requires subtotal gastrectomy
- d. Location in the proximal stomach
- e. Acid-peptic changes of the gastric mucosa

9.

A patient who has a total pancreatectomy might be expected to develop which of the following complications?

- a. Diabetes mellitus
- b. Hypercalcemia
- c. Hyperphosphatemia
- d. Constipation
- e. Weight gain

10.

Correct statements regarding carcinoembryonic antigen (CEA) and colorectal tumors include which of the following?

- a. Elevated CEA is indicative of a tumor of gastrointestinal origin
- b. A low CEA level after resection of a colon tumor is a poor marker of disease control
- c. Ninety percent of colorectal tumors produce CEA
- d. There is a high likelihood of liver involvement if the CEA level is high (greater than 100 ng/mL)
- e. CEA levels are unusually low in cigarette smokers

11.

A 46-year-old patient with gastric outlet obstruction secondary to ulcer disease and severe inflammation around the pylorus and first and second portions of the duodenum

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

12.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to

medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

13.

The hernia most likely to cause acute respiratory distress in infants
Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

14.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones
in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

15.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one
fingerlength above the anal mucocutaneous margin, the pathologist
reports it to have been a villous adenoma that contained carcinoma in
situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

16.

In planning the management of a 2.8-cm epidermoid carcinoma of the
anus, the first therapeutic approach should be

- a. Abdominoperineal resection
- b. Wide local resection with bilateringuinal node dissection
- c. Local radiation therapy

- d. Systemic chemotherapy
- e. Combined radiation therapy and chemotherapy

17.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

18.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital
- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common
- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

19.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

20.

An 88-year-old man with a history of end-stage renal failure, severe coronary artery disease, and brain metastases from lung cancer presents with acute cholecystitis. His family wants "everything done." The best management option in this patient would be

- a. Tube cholecystostomy
- b. Open cholecystectomy
- c. Laparoscopic cholecystectomy
- d. Intravenous antibiotics followed by elective cholecystectomy
- e. Lithotripsy followed by long-term bile acid therapy

II-05

1.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

2.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

3.

A 72-year-old patient with an intractable type I ulcer along the incisura with a significant amount of scarring along the entire length of the lesser curvature. Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

4.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple

- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

5.

Correct statements regarding rectal carcinoid tumors include

- a. Endoscopic resection is sufficient for tumors smaller than 2 cm
- b. Patients frequently present with the carcinoid syndrome
- c. They are rapidly growing tumors
- d. Local recurrence is rare with complete resection of the primary lesion
- e. They can develop the carcinoid syndrome even in the absence of liver metastases

6.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal \square 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

- a. The mass may cause gastric outlet or extrahepatic biliary obstruction
- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining
- e. Malignant degeneration occurs in about 25% of cases if left untreated

7.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

8.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix. Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

9.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital
- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common
- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

10.

True statements regarding hemobilia include which of the following?

- a. The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- b. Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

11.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

12.

On Monday morning, a septuagenarian man has a moderate-sized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- a. Decompression of the large bowel via colonoscopy
- b. Replacement of the nasogastric tube and administration of low-dose cholinergic drugs
- c. Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- d. Immediate return to the operating room for operative decompression by transverse colostomy
- e. Right hemicolectomy

13.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

14.

A 55-year-old man who is extremely obese reports weakness, sweating, tachycardia, confusion, and headache whenever he fasts for more than a few hours. He has prompt relief of symptoms when he eats. These symptoms are most suggestive of which of the following disorders?

- a. Diabetes mellitus
- b. Insulinoma
- c. Zollinger-Ellison syndrome
- d. Carcinoid syndrome
- e. Multiple endocrine neoplasia, type II

15.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. The patient should be told that the operation of choice is

- a. Vagotomy and pyloroplasty
- b. Highly selective vagotomy and tumor resection
- c. Subtotal gastrectomy
- d. Total gastrectomy
- e. Partial pancreatectomy

16.

A 55-year-old woman with cancer of the cervix undergoes hysterectomy and is found to have pelvic lymph nodes involved with cancer. She then receives a course of external beam radiation (4500 rads). When the physician counsels her prior to her radiation treatment, she should be told of all the possible complications of radiation enteritis. Which of the following is generally not associated with radiation injury?

- a. Malabsorption
- b. Intussusception
- c. Ulceration
- d. Fistulization
- e. Perforation

17.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

18.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

19.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

20.

Which of the following statements regarding the etiology of obstructive jaundice is true?

- a. A markedly elevated SGOT and SGPT are usually associated with obstructive jaundice
- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
- c. A Klatskin tumor will result in extrahepatic ductal dilation only
- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
- e. Carcinoma of the head of the pancreas can cause deep epigastric or back pain in as many as 80% of patients

II-06

1.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a “bird’s beak” deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

2.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst
- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

3.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

4.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to

be found?

- a. Villous adenoma
- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

5.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements regarding pancreatic carcinoma is true?

- a. The majority of cases present with jaundice alone
- b. CT scan, angiography, and laparoscopy have been unsuccessful in predicting resectability
- c. If a patient is jaundiced, the resectability rate is less than 5%
- d. 99% of patients with pancreatic cancer have metastatic disease at the time of diagnosis
- e. The 5-year survival rate after a Whipple procedure (pancreaticoduodenectomy) performed for cure is 30–40%

6.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)
- b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

7.

A 42-year-old man with no history of use of nonsteroidal anti-inflammatory drugs (NSAIDs) presents with recurrent gastritis. Infection with *Helicobacter pylori* is suspected. Which of the following statements is true?

- a. Morphologically, the bacteria is a gram-positive, tennis-racket-shaped organism

- b. Diagnosis can be made by serologic testing or urea breath tests
- c. Diagnosis is most routinely achieved via culturing endoscopic scrapings
- d. The most effective way to treat and prevent recurrence of this patient's gastritis is through the use of single drug therapy aimed at eradicating *H. pylori*
- e. The organism is easily eradicated

8.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

9.

Which of the following statements regarding the etiology of obstructive jaundice is true?

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- c. A Klatskin tumor will result in extrahepatic ductal dilation only
- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
- e. Carcinoma of the head of the pancreas can cause deep epigastric or back pain in as many as 80% of patients

10.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

11.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

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A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is

- a. Choledochoplasty with insertion of a T tube
- b. End-to-end choledochocholedochal anastomosis
- c. Roux-en-Y choledochojejunostomy
- d. Percutaneous transhepatic dilatation
- e. Choledochoduodenostomy

13.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

14.

Which of the following statements concerning carcinoma of the

esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

15.

A 55-year-old man who is extremely obese reports weakness, sweating, tachycardia, confusion, and headache whenever he fasts for more than a few hours. He has prompt relief of symptoms when he eats. These symptoms are most suggestive of which of the following disorders?

- a. Diabetes mellitus
- b. Insulinoma
- c. Zollinger-Ellison syndrome
- d. Carcinoid syndrome
- e. Multiple endocrine neoplasia, type II

16.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction
- e. Coexistent extrahepatic cysts are uncommon

17.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy

e. Detorsion of the volvulus and colopexy or resection

18.

True statements regarding hemobilia include which of the following?

- a. The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- b. Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

19.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

20.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an abdominal mass, and jaundice
- d. Cystic dilation of the intrahepatic biliary tree may coexist and is managed in a similar fashion
- e. Surgery should be reserved for symptomatic patients

II-07

1.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

2.

An 88-year-old man with a history of end-stage renal failure, severe coronary artery disease, and brain metastases from lung cancer presents with acute cholecystitis. His family wants “everything done.” The best management option in this patient would be

- a. Tube cholecystostomy
- b. Open cholecystectomy
- c. Laparoscopic cholecystectomy
- d. Intravenous antibiotics followed by elective cholecystectomy
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After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal \square 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

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- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining
- e. Malignant degeneration occurs in about 25% of cases if left untreated

4.

Indications for surgical removal of polypoid lesions of the gallbladder include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years

- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

5.

A patient who has a total pancreatectomy might be expected to develop which of the following complications?

- a. Diabetes mellitus
- b. Hypercalcemia
- c. Hyperphosphatemia
- d. Constipation
- e. Weight gain

6.

True statements regarding cavernous hemangiomas of the liver in adults include

- a. The majority become symptomatic
- b. They may undergo malignant transformation
- c. They enlarge under hormonal stimulation
- d. They should be resected to avoid spontaneous rupture and life-threatening hemorrhage
- e. A liver/spleen radionuclide scan is the most sensitive and specific way to make the diagnosis

7.

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Which of the following statements regarding the etiology of obstructive jaundice is true?

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- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
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II-08

1.

An 88-year-old man with a history of end-stage renal failure, severe coronary artery disease, and brain metastases from lung cancer presents with acute cholecystitis. His family wants “everything done.” The best management option in this patient would be

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- a. A markedly elevated SGOT and SGPT are usually associated with obstructive jaundice
- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
- c. A Klatskin tumor will result in extrahepatic ductal dilation only
- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
- e. Carcinoma of the head of the pancreas can cause deep epigastric or back pain in as many as 80% of patients

4.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst

- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

5.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

6.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal < 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

- a. The mass may cause gastric outlet or extrahepatic biliary obstruction
- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining
- e. Malignant degeneration occurs in about 25% of cases if left untreated

7.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and

absorb less than 5% of an average protein meal in the absence of the pancreas

8.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath
- d. Torsion of an ovarian cyst
- e. Cholecystitis

9.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an abdominal mass, and jaundice
- d. Cystic dilation of the intrahepatic biliary tree may coexist and is managed in a similar fashion
- e. Surgery should be reserved for symptomatic patients

10.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic

reaction

e. Coexistent extrahepatic cysts are uncommon

11.

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

12.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

13.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

14.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a "bird's beak" deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the

lower esophageal sphincter

- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

15.

A patient who has a total pancreatectomy might be expected to develop which of the following complications?

- a. Diabetes mellitus
- b. Hypercalcemia
- c. Hyperphosphatemia
- d. Constipation
- e. Weight gain

16.

A 36-h-old infant presents with bilious vomiting and an increasingly distended abdomen. At exploration the segment below is found as the point of obstruction. Which of the following statements regarding this finding is true?

- a. Resection with primary anastomosis should not be performed
- b. Gentle, persistent traction on the specimen usually corrects the defect and removes the need for a resection
- c. The lesion is much more common in the jejunum than in the ileum in this age group
- d. This problem is probably related to mesenteric vascular insufficiency
- e. A properly monitored barium enema might have corrected this defect and removed the need for an operation

17.

Indications for surgical removal of polypoid lesions of the gallbladder include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years
- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

18.

True statements regarding hemobilia include which of the following?

- a. The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- b. Spontaneous bleeding secondary to hematologic disorders is the

major cause of this disorder

- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

19.

A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is

- a. Choledochoplasty with insertion of a T tube
- b. End-to-end choledochocholedochal anastomosis
- c. Roux-en-Y choledochojejunostomy
- d. Percutaneous transhepatic dilatation
- e. Choledochoduodenostomy

20.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

II-09

1.

A 42-year-old man with no history of use of nonsteroidal anti-inflammatory drugs (NSAIDs) presents with recurrent gastritis. Infection with *Helicobacter pylori* is suspected. Which of the following statements is true?

- a. Morphologically, the bacteria is a gram-positive, tennis-racket-shaped organism
- b. Diagnosis can be made by serologic testing or urea breath tests
- c. Diagnosis is most routinely achieved via culturing endoscopic scrapings
- d. The most effective way to treat and prevent recurrence of this patient's gastritis is through the use of single drug therapy aimed at eradicating *H. pylori*
- e. The organism is easily eradicated

2.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to be a carcinoid tumor. Which of the following statements is true?

- a. No further surgery is indicated
- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

3.

Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4?

- a. Umbilical hernia
- b. Patent urachus
- c. Patent omphalomesenteric duct
- d. Omphalocele
- e. Gastroschisis

4.

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- e. Patients with this disease are at no increased risk for the development of carcinoma

5.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

6.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

7.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy

e. Proximal gastric vagotomy

8.

Which of the following statements regarding the etiology of obstructive jaundice is true?

- a. A markedly elevated SGOT and SGPT are usually associated with obstructive jaundice
- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
- c. A Klatskin tumor will result in extrahepatic ductal dilation only
- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
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- b. Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

10.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

11.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for

surgical drainage

- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction
- e. Coexistent extrahepatic cysts are uncommon

12.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

13.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

14.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
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- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

16.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

17.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix.

Which of the following statements is true?

- a. The patient should be advised to undergo ileocollectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

18.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to be found?

- a. Villous adenoma

- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

19.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

20.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)
- b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

II-10

1.

Indications for surgical removal of polypoid lesions of the gallbladder include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years
- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

2.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

3.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal \square 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

- a. The mass may cause gastric outlet or extrahepatic biliary obstruction
- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining
- e. Malignant degeneration occurs in about 25% of cases if left untreated

4.

A patient who has a total pancreatectomy might be expected to

develop which of the following complications?

- a. Diabetes mellitus
- b. Hypercalcemia
- c. Hyperphosphatemia
- d. Constipation
- e. Weight gain

5.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

6.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

7.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

8.

An 88-year-old man with a history of end-stage renal failure, severe coronary artery disease, and brain metastases from lung cancer presents with acute cholecystitis. His family wants “everything done.” The best management option in this patient would be

- a. Tube cholecystostomy
- b. Open cholecystectomy
- c. Laparoscopic cholecystectomy
- d. Intravenous antibiotics followed by elective cholecystectomy
- e. Lithotripsy followed by long-term bile acid therapy

9.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction
- e. Coexistent extrahepatic cysts are uncommon

10.

Which of the following would be expected to stimulate intestinal motility?

- a. Fear
- b. Gastrin
- c. Secretin
- d. Acetylcholine
- e. Cholecystokinin

11.

True statements regarding cavernous hemangiomas of the liver in adults include

- a. The majority become symptomatic
- b. They may undergo malignant transformation
- c. They enlarge under hormonal stimulation
- d. They should be resected to avoid spontaneous rupture and life-threatening hemorrhage
- e. A liver/spleen radionuclide scan is the most sensitive and specific way to make the diagnosis

12.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

13.

On Monday morning, a septuagenarian man has a moderate-sized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- a. Decompression of the large bowel via colonoscopy
- b. Replacement of the nasogastric tube and administration of low-dose cholinergic drugs
- c. Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- d. Immediate return to the operating room for operative decompression by transverse colostomy
- e. Right hemicolectomy

14.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an abdominal mass, and jaundice
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Which of the following statements regarding direct inguinal hernias is true?

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16.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
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- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

17.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. *Campylobacter*
- b. Cytomegalovirus
- c. *Helicobacter*
- d. *Mycobacterium avium-intracellulare*
- e. *Yersinia enterocolitica*

18.

True statements regarding hemobilia include which of the following?

- a. The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- b. Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding
- e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

19.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for celiotomy during pregnancy
- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed

with a period of observation of due to the risks of laparotomy to the fetus

- d. Noncomplicated appendicitis results in a 20% fetal mortality and premature labor rate
- e. The severity of appendicitis correlates with increased gestational age of the fetus

20.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy
- e. Detorsion of the volvulus and colopexy or resection

III-01

1.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

2.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

3.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension
- d. Diabetes
- e. Type I hyperlipoproteinemia

4.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

5.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

6.

Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

7.

A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

- a. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
- b. Noninvasive hemodynamic testing is required
- c. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse
- d. The source of the embolus is most likely the left ventricle
- e. Arteriography is mandatory prior to operative intervention

8.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy

- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

9.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

10.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

11.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

12.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a "coiled

spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

13.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

14.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

15.

Evidence that a splenectomy might benefit a patient with immune (idiopathic) thrombocytopenic purpura (ITP) includes

- a. A significant enlargement of the spleen
- b. A high reticulocyte count
- c. Megakaryocytic elements in the bone marrow
- d. An increase in the platelet count on cortisone therapy
- e. Patient age of less than 5 years

16.

Which of the following statements concerning imperforate anus is true?

- a. Imperforate anus affects males more frequently than females
- b. In 90% of males, but only 50% of females, the rectum ends below the level of the levator ani complex
- c. The rectum usually ends in a blind pouch
- d. The chance for eventual continence is greater when the rectum has descended to below the levator ani complex
- e. Immediate definitive repair of the anatomic defect is required to maximize the chance of eventual continence

17.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

18.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

19. A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. After initial resuscitation, this man should undergo

- a. Esophageal balloon tamponade
- b. Barium swallow
- c. Selective angiography

- d. Esophagogastroscope
- e. Exploratory celiotomy

20.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

III-02

1.

During evaluation for the repair of an expanding abdominal aortic aneurysm, a patient is discovered to have a horseshoe kidney. The optimum surgical approach would be

- a. Midline abdominal incision, preservation of the renal isthmus
- b. Midline abdominal incision, division of the renal isthmus
- c. Retroperitoneal approach, implantation of anomalous renal arteries
- d. Nephrectomy, repair of aneurysm, chronic dialysis
- e. Repair of aneurysm after autotransplantation of the kidney into the iliac fossa

2.

Two days after admission to the hospital for a myocardial infarction, a 65-year-old man complains of severe, unremitting midabdominal pain. His cardiac index is 1.6. Physical examination is remarkable for an absence of peritoneal irritation or distention despite the patient's persistent complaint of severe pain. Serum lactate is 9 (normal less than 3). In managing this problem you should

- a. Perform computed tomography
- b. Perform mesenteric angiography
- c. Perform laparoscopy
- d. Perform flexible sigmoidoscopy to assess the distal colon and rectum
- e. Defer decision to explore the abdomen until the arterial lactate is greater than 10

3.

Which of the following statements concerning the condition depicted on the arteriogram shown below is true?

- a. Surgery should be performed only if the patient is symptomatic
- b. Limb loss is a definite risk in the untreated patient
- c. The contralateral limb is affected in a similar fashion in over 75% of cases
- d. Embolization is unlikely
- e. Bleeding into the leg is the most common presentation

4.

A 64-year-old man is admitted 14 mo following a femoropopliteal bypass graft procedure with a cold foot and no graft pulse. Urokinase infusion is begun. Which of the following statements regarding management is true?

- a. Clot lysis is accomplished in 25% of patients
- b. After successful clot lysis, surgical revision of the opened graft should be considered only if early reocclusion occurs
- c. With optimal treatment, a 20% reocclusion rate is expected within 1 year
- d. Urokinase is less successful in lysing acute thromboses of prosthetic grafts than those of vein grafts
- e. Streptokinase is the preferred thrombolytic agent when treating graft occlusions

5.

Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

6.

The subclavian steal syndrome is associated with which of the following hemodynamic abnormalities?

- a. Antegrade flow through a vertebral artery
- b. Venous congestion of upper extremities
- c. Occlusion of the carotid artery
- d. Occlusion of the vertebral artery
- e. Occlusion of the subclavian artery

7.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

8.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction

- when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
 - c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
 - d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
 - e. Even though ligated veins thrombose, they often recanalize

9.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

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- a. Angiography
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10.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
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- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection

- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

12.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

13.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

14.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in the field but none on arrival in the emergency room
- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

15.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a "bird's beak" deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention

- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

16.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

17.

A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. A diagnosis of bleeding esophageal varices is made in this patient. Appropriate initial therapy would be

- a. Intravenous vasopressin
- b. Endoscopic sclerotherapy
- c. Emergency portacaval shunt
- d. Emergency esophageal transection
- e. Esophageal balloon tamponade

18.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant. Correct treatment should consist of

- a. Ileocelectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

19.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

20.

A previously healthy 9-year-old child comes to the emergency room because of fulminant upper gastrointestinal bleeding. The hemorrhage is most likely to be the result of

- a. Esophageal varices
- b. Mallory-Weiss syndrome
- c. Gastritis
- d. A gastric ulcer
- e. A duodenal ulcer

III-03

1.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

2.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
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A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

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- c. Shifting of the trachea toward the right
- d. Dilatation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

4.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy

- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y cholechojejunostomy
- e. Bridging of the injury with a T tube

5.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
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- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

6.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

7.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

8.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

9.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

10.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

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Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

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Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

14.

A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

- a. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
- b. Noninvasive hemodynamic testing is required
- c. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse
- d. The source of the embolus is most likely the left ventricle
- e. Arteriography is mandatory prior to operative intervention

15.

The hernia most likely to cause acute respiratory distress in infants Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

16.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

17.

A 72-year-old patient with an intractable type I ulcer along the incisura with a significant amount of scarring along the entire length of the lesser curvature. Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

18.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

19.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to be a carcinoid tumor. Which of the following statements is true?

- a. No further surgery is indicated

- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

20.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

III-04

1.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
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- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

3.

Among patients with suspected (occult) coronary artery disease, the occurrence of postoperative ischemic cardiac events following peripheral vascular surgery correlates closely with abnormal preoperative

- a. Exercise stress testing
- b. Gated blood pool studies that demonstrate an ejection fraction of 50% or less
- c. Coronary angiography
- d. Dipyridamole-thallium imaging
- e. Transesophageal echocardiography

4.

Which of the following statements concerning the condition depicted on the arteriogram shown below is true?

- a. Surgery should be performed only if the patient is symptomatic
- b. Limb loss is a definite risk in the untreated patient

- c. The contralateral limb is affected in a similar fashion in over 75% of cases
- d. Embolization is unlikely
- e. Bleeding into the leg is the most common presentation

5.

Indications for placement of the device pictured in the abdominal x-ray shown below include

- a. Recurrent pulmonary embolus despite adequate anticoagulation therapy
- b. Axillary vein thrombosis
- c. Pulmonary embolus in a patient with a perforated duodenal ulcer
- d. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
- e. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

6.

Which statement regarding contrast venography is true?

- a. It is more accurate than Doppler analysis and B-mode ultrasound (duplex scan) at detecting thrombi in the deep veins responsible for pulmonary emboli
- b. It identifies incompetent deep, superficial, and perforating veins
- c. It is totally noninvasive, painless, and safe
- d. It is easily performed in a vascular laboratory or radiology suite or at the bedside
- e. It is particularly sensitive in identifying the proximal extent of an iliofemoral thrombus

7.

Two days after admission to the hospital for a myocardial infarction, a 65-year-old man complains of severe, unremitting midabdominal pain. His cardiac index is 1.6. Physical examination is remarkable for an absence of peritoneal irritation or distention despite the patient's persistent complaint of severe pain. Serum lactate is 9 (normal less than 3). In managing this problem you should

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- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

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The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

10.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

11.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

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e. *Escherichia coli*

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- c. Shifting of the trachea toward the right
- d. Dilation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

14.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

15.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa

- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

16.

Correct statements concerning intussusception in infants include which of the following?

- a. Recurrence rates following treatment are high
- b. It is frequently preceded by a gastrointestinal viral illness
- c. A 1- to 2-wk period of parenteral alimentation should precede surgical reduction when surgery is required
- d. Hydrostatic reduction without surgery rarely provides successful treatment
- e. The most common type occurs at the junction of the descending colon and sigmoid colon

17.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Which of the following statements is true about this patient?

- a. The inflammatory process is likely to be confined to the mucosa and submucosa
- b. The inflammatory reaction is likely to be continuous
- c. Superficial as opposed to linear ulcerations can be expected
- d. Noncaseating granulomata can be expected in up to 50% of patients with similar disease
- e. Microabscesses within crypts are common

18.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy

e. Detorsion of the volvulus and colopexy or resection

19.

Which of the following statements regarding appendicitis during pregnancy is correct?

- a. Appendicitis is the most prevalent extrauterine indication for celiotomy during pregnancy
- b. Appendicitis occurs more commonly in pregnant women than in nonpregnant women of comparable age
- c. Suspected appendicitis in a pregnant woman should be managed with a period of observation of due to the risks of laparotomy to the fetus
- d. Noncomplicated appendicitis results in a 20% fetal mortality and premature labor rate
- e. The severity of appendicitis correlates with increased gestational age of the fetus

20.

On Monday morning, a septuagenarian man has a moderate-sized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- a. Decompression of the large bowel via colonoscopy
- b. Replacement of the nasogastric tube and administration of low-dose cholinergic drugs
- c. Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- d. Immediate return to the operating room for operative decompression by transverse colostomy
- e. Right hemicolectomy

III-05

1.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
- e. Even though ligated veins thrombose, they often recanalize

2.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

3.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

4.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a "coiled

spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

5.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

6.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

7.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels

- d. Hyperkalemia
- e. Hypoglycemia

8.

A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulitis of the right foot. The patient's underlying problem is

- a. Popliteal entrapment syndrome
- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

9.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

10.

A 75-year-old man is found by his internist to have an asymptomatic carotid bruit. The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

11.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This

patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

12.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

13.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

14.

Among patients with suspected (occult) coronary artery disease, the occurrence of postoperative ischemic cardiac events following peripheral vascular surgery correlates closely with abnormal preoperative

- a. Exercise stress testing
- b. Gated blood pool studies that demonstrate an ejection fraction of 50% or less
- c. Coronary angiography
- d. Dipyridamole-thallium imaging
- e. Transesophageal echocardiography

15.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its

contents

- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction
- e. Coexistent extrahepatic cysts are uncommon

16.

Indications for operation in Crohn's disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

17.

In planning the management of a 2.8-cm epidermoid carcinoma of the anus, the first therapeutic approach should be

- a. Abdominoperineal resection
- b. Wide local resection with bilateringuinal node dissection
- c. Local radiation therapy
- d. Systemic chemotherapy
- e. Combined radiation therapy and chemotherapy

18.

A 55-year-old man who is extremely obese reports weakness, sweating, tachycardia, confusion, and headache whenever he fasts for more than a few hours. He has prompt relief of symptoms when he eats. These symptoms are most suggestive of which of the following disorders?

- a. Diabetes mellitus
- b. Insulinoma
- c. Zollinger-Ellison syndrome
- d. Carcinoid syndrome
- e. Multiple endocrine neoplasia, type II

19.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–

150) on three separate determinations. The patient should be told that the operation of choice is

- a. Vagotomy and pyloroplasty
- b. Highly selective vagotomy and tumor resection
- c. Subtotal gastrectomy
- d. Total gastrectomy
- e. Partial pancreatectomy

20.

Which of the following would be expected to stimulate intestinal motility?

- a. Fear
- b. Gastrin
- c. Secretin
- d. Acetylcholine
- e. Cholecystokinin

III-06

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

On Monday morning, a septuagenarian man has a moderatesized abdominal aneurysm resected. On Friday, he is noted to be markedly distended with an abdominal radiograph on which the cecum is measured as 12 cm across. Proper management at this time would be

- a. Decompression of the large bowel via colonoscopy
- b. Replacement of the nasogastric tube and administration of lowdose cholinergic drugs
- c. Continued nothing-by-mouth orders, administration of a gentle saline enema, and encouragement of ambulation
- d. Immediate return to the operating room for operative decompression by transverse colostomy
- e. Right hemicolectomy

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an "apple core" configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males

- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

1.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

2.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

3.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

4.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure

- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

5.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

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- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

7.

In determining the proper treatment for a sliding hiatal hernia, the most useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

8.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

9.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

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Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

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An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

13.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension
- d. Diabetes
- e. Type I hyperlipoproteinemia

III-07

1.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

2.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below.

- a. Surgery should be performed, but a mortality of 20% is to be anticipated
- b. Surgery should be performed only if symptoms develop
- c. Surgery will improve his 5-year survival
- d. Surgery this extensive should not be performed in a patient of his age
- e. Surgery should be performed only if follow-up ultrasound demonstrates increasing size

3.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

4.

A 75-year-old man is found by his internist to have an asymptomatic carotid bruit. The best initial diagnostic examination would be

- a. Transcranial Doppler studies

- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
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A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

6.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

7.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a “coiled spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

8.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst
- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

9.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

10.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

11.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large

e. It is associated with a history of pancreatitis

12.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

13.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a “bird’s beak” deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

14.

A 75-year-old man is found by his internist to have an asymptomatic carotid bruit.

- a. Surgery should be performed, but a mortality of 20% is to be anticipated
- b. Surgery should be performed only if symptoms develop
- c. Surgery will improve his 5-year survival
- d. Surgery this extensive should not be performed in a patient of his age
- e. Surgery should be performed only if follow-up ultrasound demonstrates increasing size

15.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical

examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

16.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

17.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

18.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy

- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

19.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Medical therapy with aspirin 325 mg/day and medical risk factor management
- b. Medical therapy with warfarin
- c. Angioplasty of the carotid lesion followed by carotid endarterectomy if the angioplasty is unsuccessful
- d. Carotid endarterectomy
- e. Medical risk factor management and carotid endarterectomy if neurologic symptoms develop

20.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

III-08

1.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

2.

The subclavian steal syndrome is associated with which of the following hemodynamic abnormalities?

- a. Antegrade flow through a vertebral artery
- b. Venous congestion of upper extremities
- c. Occlusion of the carotid artery
- d. Occlusion of the vertebral artery
- e. Occlusion of the subclavian artery

3.

Among patients with suspected (occult) coronary artery disease, the occurrence of postoperative ischemic cardiac events following peripheral vascular surgery correlates closely with abnormal preoperative

- a. Exercise stress testing
- b. Gated blood pool studies that demonstrate an ejection fraction of 50% or less
- c. Coronary angiography
- d. Dipyridamole-thallium imaging
- e. Transesophageal echocardiography

4.

A spry octogenarian who has never before been hospitalized is admitted with signs and symptoms typical of a small bowel obstruction. Which of the following clinical findings would give the most help in ascertaining the diagnosis?

- a. Coffee-grounds aspirate from the stomach
- b. Aerobilia
- c. A leukocyte count of 40,000/ μ L
- d. A pH of 7.5, PCO₂ of 50 kPa, and paradoxically acid urine
- e. A palpable mass in the pelvis

5.

Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

6.

A 70-year-old woman has nausea, vomiting, abdominal distention, and episodic, crampy midabdominal pain. She has no history of previous surgery but has a long history of cholelithiasis for which she has refused surgery. Her abdominal radiograph reveals a spherical density in the right lower quadrant. Correct treatment should consist of

- a. Ileocelectomy
- b. Cholecystectomy
- c. Ileotomy and extraction
- d. Nasogastric tube decompression
- e. Intravenous antibiotics

7.

A 64-year-old man is admitted 14 mo following a femoropopliteal bypass graft procedure with a cold foot and no graft pulse. Urokinase infusion is begun. Which of the following statements regarding management is true?

- a. Clot lysis is accomplished in 25% of patients
- b. After successful clot lysis, surgical revision of the opened graft should be considered only if early reocclusion occurs
- c. With optimal treatment, a 20% reocclusion rate is expected within 1 year
- d. Urokinase is less successful in lysing acute thromboses of prosthetic grafts than those of vein grafts
- e. Streptokinase is the preferred thrombolytic agent when treating graft occlusions

8.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography

- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

9.

A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

- a. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
- b. Noninvasive hemodynamic testing is required
- c. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse
- d. The source of the embolus is most likely the left ventricle
- e. Arteriography is mandatory prior to operative intervention

10.

Which of the following statements concerning the condition depicted on the arteriogram shown below is true?

- a. Surgery should be performed only if the patient is symptomatic
- b. Limb loss is a definite risk in the untreated patient
- c. The contralateral limb is affected in a similar fashion in over 75% of cases
- d. Embolization is unlikely
- e. Bleeding into the leg is the most common presentation

11.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous

return is already sufficiently impaired to render venous repair pointless
e. Even though ligated veins thrombose, they often recanalize

12.

A 65-year-old male cigarette smoker reports onset of claudication of his right lower extremity approximately 3 wk previously. His walking radius is limited to three blocks before the onset of claudication. Physical examination reveals palpable pulses in the entire left lower extremity, but no pulses are palpable below the right groin level. Noninvasive flow studies are obtained, which are pictured below. Which of the following statements regarding this patient's condition is true?

- a. Femoropopliteal bypass is indicated on a relatively urgent basis in order to salvage the right leg
- b. The occlusive process is in the right superficial femoral artery, with flow to the right foot supplied by the profunda femoris artery
- c. About one-half of patients with similar symptoms will ultimately require amputation
- d. The occlusive process is most likely caused by embolic disease
- e. The noninvasive studies suggest iliac as well as superficial femoral occlusive disease on the right side

13.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)
- b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

14.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in

the field but none on arrival in the emergency room

- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

15.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions is a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

16.

A 55-year-old man complains of chronic intermittent epigastric pain, and gastroscopy demonstrates a 2-cm ulcer of the distal lesser curvature. Endoscopic biopsy yields no malignant tissue. After a 6-wk trial of H₂ blockade and antacid therapy, the ulcer is unchanged. Proper therapy at this point is

- a. Repeat trial of medical therapy
- b. Local excision of the ulcer
- c. Billroth I partial gastrectomy
- d. Billroth I partial gastrectomy with vagotomy
- e. Vagotomy and pyloroplasty

17.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

18.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears

frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

19.

During an operation for carcinoma of the hepatic flexure of the colon, an unexpected discontinuous 3-cm metastasis is discovered in the edge of the right lobe of the liver. The surgeon should

- a. Terminate the operation, screen the patient for evidence of other metastases, and plan further therapy after the reevaluation
- b. Perform a right hemicolectomy and a right hepatic lobectomy
- c. Perform a right hemicolectomy and a wedge resection of the metastasis
- d. Perform a cecostomy and schedule reoperation after a course of systemic chemotherapy
- e. Perform local resection of the primary colon cancer and plan radiation therapy for the lesion on the liver

20.

A 42-year-old man with no history of use of nonsteroidal anti-inflammatory drugs (NSAIDs) presents with recurrent gastritis. Infection with *Helicobacter pylori* is suspected. Which of the following statements is true?

- a. Morphologically, the bacteria is a gram-positive, tennis-racket-shaped organism
- b. Diagnosis can be made by serologic testing or urea breath tests
- c. Diagnosis is most routinely achieved via culturing endoscopic scrapings
- d. The most effective way to treat and prevent recurrence of this patient's gastritis is through the use of singledrug therapy aimed at eradicating *H. pylori*
- e. The organism is easily eradicated

III-09

1.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a “coiled spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

2.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

3.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

4.

Local stimuli that inhibit the release of gastrin from the gastric mucosa

include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

5.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

6.

Indications for placement of the device pictured in the abdominal x-ray shown below include

- a. Recurrent pulmonary embolus despite adequate anticoagulation therapy
- b. Axillary vein thrombosis
- c. Pulmonary embolus in a patient with a perforated duodenal ulcer
- d. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
- e. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

7.

Two days after admission to the hospital for a myocardial infarction, a 65-year-old man complains of severe, unremitting midabdominal pain. His cardiac index is 1.6. Physical examination is remarkable for an absence of peritoneal irritation or distention despite the patient's persistent complaint of severe pain. Serum lactate is 9 (normal less than 3). In managing this problem you should

- a. Perform computed tomography
- b. Perform mesenteric angiography

- c. Perform laparoscopy
- d. Perform flexible sigmoidoscopy to assess the distal colon and rectum
- e. Defer decision to explore the abdomen until the arterial lactate is greater than 10

8.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

9.

During evaluation for the repair of an expanding abdominal aortic aneurysm, a patient is discovered to have a horseshoe kidney. The optimum surgical approach would be

- a. Midline abdominal incision, preservation of the renal isthmus
- b. Midline abdominal incision, division of the renal isthmus
- c. Retroperitoneal approach, implantation of anomalous renal arteries
- d. Nephrectomy, repair of aneurysm, chronic dialysis
- e. Repair of aneurysm after autotransplantation of the kidney into the iliac fossa

10.

Which statement regarding contrast venography is true?

- a. It is more accurate than Doppler analysis and B-mode ultrasound (duplex scan) at detecting thrombi in the deep veins responsible for pulmonary emboli
- b. It identifies incompetent deep, superficial, and perforating veins
- c. It is totally noninvasive, painless, and safe
- d. It is easily performed in a vascular laboratory or radiology suite or at the bedside
- e. It is particularly sensitive in identifying the proximal extent of an

iliofemoral thrombus

11.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath
- d. Torsion of an ovarian cyst
- e. Cholecystitis

12.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

13.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis

e. Administer intravenous fluids

14.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

15.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

16.

Which of the following statements concerning Hirschsprung's disease is true?

- a. It is initially treated by colostomy
- b. It is best diagnosed in the newborn period by barium enema
- c. It is characterized by the absence of ganglion cells in the transverse colon
- d. It is associated with a high incidence of genitourinary tract anomalies
- e. It is the congenital disease that most commonly leads to subsequent fecal incontinence

17.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilatation of the intrathoracic vena cava

e. Hyperinflation of the left lung

18.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

19.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

20.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

III-10

1.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

2.

A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is

- a. Choledochoplasty with insertion of a T tube
- b. End-to-end choledochocholedochal anastomosis
- c. Roux-en-Y choledochojejunostomy
- d. Percutaneous transhepatic dilatation
- e. Choledochoduodenostomy

3.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

4.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

5.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

6.

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

7.

A 55-year-old man who is extremely obese reports weakness, sweating, tachycardia, confusion, and headache whenever he fasts for more than a few hours. He has prompt relief of symptoms when he eats. These symptoms are most suggestive of which of the following disorders?

- a. Diabetes mellitus
- b. Insulinoma
- c. Zollinger-Ellison syndrome

- d. Carcinoid syndrome
- e. Multiple endocrine neoplasia, type II

8.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

9.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

10.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

11.

A 75-year-old man is found by his internist to have an asymptomatic carotid bruit. The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

12.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

13.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

14.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

15.

A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulitis of the right foot. The patient's underlying problem is

- a. Popliteal entrapment syndrome
- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

16.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

17.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in the field but none on arrival in the emergency room
- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

18.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

19.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension
- d. Diabetes
- e. Type I hyperlipoproteinemia

20.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

IV-01

1.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

2.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine
- e. Cloxacillin

3.

The true statement regarding tendon injuries in the hand is

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx
- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing a tendon injury involves formation of a tenoma

4.

A 45-year-old woman undergoes an uneventful laparoscopic cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither

sensitive nor specific; therefore diagnosis should be based on clinical findings

d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis

e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

5.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound management is correct?

a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms

b. Early excision of facial and hand burns is especially important

c. Escharotomy should only be performed if neurologic impairment is imminent

d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury

e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

6.

True statements regarding squamous cell carcinoma of the lip include

a. The lesion often arises in areas of persistent hyperkeratosis

b. More than 90% of cases occur on the upper lip

c. The lesion constitutes 30% of all cancers of the oral cavity

d. Radiotherapy is considered inappropriate treatment for these lesions

e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

7.

Which of the following is true with regard to wound contraction?

a. It is the primary process affecting closure of a sutured or stapled surgical wound

b. Bacterial colonization significantly slows the process of contraction

c. It may account for a maximum of 50% decrease in the size of a wound

d. It is based on specialized fibroblasts that contain actin myofilaments

e. The percentage reduction of wound size is increased with increased

adherency of skin to underlying tissue

8.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

9.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes become palpable
- e. Intralesional bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

10.

Which statement regarding contrast venography is true?

- a. It is more accurate than Doppler analysis and B-mode ultrasound (duplex scan) at detecting thrombi in the deep veins responsible for pulmonary emboli
- b. It identifies incompetent deep, superficial, and perforating veins
- c. It is totally noninvasive, painless, and safe
- d. It is easily performed in a vascular laboratory or radiology suite or at the bedside
- e. It is particularly sensitive in identifying the proximal extent of an iliofemoral thrombus

11.

During evaluation for the repair of an expanding abdominal aortic aneurysm, a patient is discovered to have a horseshoe kidney. The optimum surgical approach would be

- a. Midline abdominal incision, preservation of the renal isthmus
- b. Midline abdominal incision, division of the renal isthmus
- c. Retroperitoneal approach, implantation of anomalous renal arteries
- d. Nephrectomy, repair of aneurysm, chronic dialysis
- e. Repair of aneurysm after autotransplantation of the kidney into the iliac fossa

12.

A 65-year-old male cigarette smoker reports onset of claudication of his right lower extremity approximately 3 wk previously. His walking radius is limited to three blocks before the onset of claudication. Physical examination reveals palpable pulses in the entire left lower extremity, but no pulses are palpable below the right groin level. Noninvasive flow studies are obtained, which are pictured below. Which of the following statements regarding this patient's condition is true?

- a. Femoropopliteal bypass is indicated on a relatively urgent basis in order to salvage the right leg
- b. The occlusive process is in the right superficial femoral artery, with flow to the right foot supplied by the profunda femoris artery
- c. About one-half of patients with similar symptoms will ultimately require amputation
- d. The occlusive process is most likely caused by embolic disease
- e. The noninvasive studies suggest iliac as well as superficial femoral occlusive disease on the right side

13.

Indications for placement of the device pictured in the abdominal x-ray shown below include

- a. Recurrent pulmonary embolus despite adequate anticoagulation therapy
- b. Axillary vein thrombosis
- c. Pulmonary embolus in a patient with a perforated duodenal ulcer
- d. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
- e. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

14.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would

include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

15.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

16.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

17.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in the field but none on arrival in the emergency room
- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

18.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. Another 30-year-old man with

the identical clinical situation presented in the previous question is being considered for surgery. His serum gastrin level, however, is 150 _ 10 pg/mL on three determinations. The surgeon should perform

- a. An arteriogram
- b. A secretin stimulation test
- c. A total gastrectomy
- d. A subtotal gastrectomy
- e. A highly selective vagotomy

19.

The most common clinical presentation of idiopathic retroperitoneal fibrosis is

- a. Ureteral obstruction
- b. Leg edema
- c. Calf claudication
- d. Jaundice
- e. Intestinal obstruction

20.

A 50-year-old man presents to the emergency room with a 6-h history of excruciating abdominal pain and distention. The abdominal film shown below is obtained. The next diagnostic maneuver should be

- a. Emergency celiotomy
- b. Upper gastrointestinal series with small-bowel follow-through
- c. CT scan of the abdomen
- d. Barium enema
- e. Sigmoidoscopy

IV-02

1.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

2.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

3.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

4.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-yearold man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help

would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

5.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics
- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

6.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

7.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes become palpable
- e. Intralesional bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

8.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
- e. Even though ligated veins thrombose, they often recanalize

9.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

10.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

11.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension

- d. Diabetes
- e. Type I hyperlipoproteinemia

12.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions
- e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

13.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

14.

Which of the following is true with regard to wound contraction?

- a. It is the primary process affecting closure of a sutured or stapled surgical wound
- b. Bacterial colonization significantly slows the process of contraction
- c. It may account for a maximum of 50% decrease in the size of a wound
- d. It is based on specialized fibroblasts that contain actin myofilaments
- e. The percentage reduction of wound size is increased with increased adherency of skin to underlying tissue

15.

After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo

- a. Reexcision of the biopsy site with wider margins
- b. Abdominoperineal rectosigmoid resection
- c. Anterior resection of the rectum
- d. External radiation therapy to the rectum
- e. No further therapy

16.

A 55-year-old woman with cancer of the cervix undergoes hysterectomy and is found to have pelvic lymph nodes involved with cancer. She then receives a course of external beam radiation (4500 rads). When the physician counsels her prior to her radiation treatment, she should be told of all the possible complications of radiation enteritis. Which of the following is generally not associated with radiation injury?

- a. Malabsorption
- b. Intussusception
- c. Ulceration
- d. Fistulization
- e. Perforation

17.

Which of the following statements concerning carcinoma of the esophagus is true?

- a. Alcohol has been implicated as a precipitating factor
- b. Squamous carcinoma is the most common type at the cardioesophageal junction
- c. It has a higher incidence in males
- d. It occurs more commonly in patients with corrosive esophagitis
- e. Surgical excision is the only effective treatment

18.

A 45-year-old woman undergoes an uneventful laparoscopic cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither sensitive nor specific; therefore diagnosis should be based on clinical findings
- d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis
- e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

19.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for "eczema." Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

20.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

IV-03

1.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

2.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

3.

A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is

- a. Choledochoplasty with insertion of a T tube
- b. End-to-end choledochocholedochal anastomosis
- c. Roux-en-Y choledochojejunostomy
- d. Percutaneous transhepatic dilatation
- e. Choledochoduodenostomy

4.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

5.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

6.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

7.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline

- d. Azathioprine
- e. Cloxacillin

8.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

9.

The true statement regarding tendon injuries in the hand is

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx
- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing a tendon injury involves formation of a tenoma

10.

Which one of the following cases is considered a cleancontaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

11.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-yearold man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

12.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

13.

A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulitis of the right foot. The patient's underlying problem is

- a. Popliteal entrapment syndrome
- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

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- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

16.

Which one of the following statements regarding the above burn patient is correct?

- a. High-dose penicillin should be administered prophylactically
- b. Tetanus prophylaxis is not necessary if the patient has been immunized in the previous 3 years
- c. This burn can be estimated at 60% total body surface area using the “rule of nines”
- d. The most sensitive indicator of adequacy of fluid resuscitation is heart rate
- e. This patient should undergo immediate intubation for airway protection and oxygen administration

17.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions
- e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

18.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

19.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

20.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

IV-04

1.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

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The angiogram depicted below is most typical of the patient whose history includes

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The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

15.

Which of the following statements is true regarding the effects of colon

resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

16.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

17.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut mucosa
- e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

18.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine

e. Cloxacillin

19.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

20.

The true statement regarding tendon injuries in the hand is

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx
- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing a tendon injury involves formation of a tenoma

IV-05

1.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

2.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

3.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an "apple core" configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

4.

Which of the following organisms is most closely associated with gastric and duodenal ulcer disease?

- a. Campylobacter
- b. Cytomegalovirus
- c. Helicobacter
- d. Mycobacterium avium-intracellulare
- e. Yersinia enterocolitica

5.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

6.

Wasting of the intrinsic muscles of the hand can be expected to follow injury of the

- a. Ulnar nerve
- b. Radial nerve
- c. Brachial nerve
- d. Axillary nerve
- e. Thenar and hypothenar nerves

7.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

8.

While you are on duty in the emergency room, a 12-year-old boy arrives with pain and inflammation over the ball of his left foot and red streaks extending up the inner aspect of his leg. He remembers removing a wood splinter from the sole of his foot on the previous day. The most likely infecting organism is

- a. Clostridium perfringens
- b. Clostridium tetani
- c. Staphylococcus

- d. Escherichia coli
- e. Streptococcus

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Proper treatment for frostbite consists of

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- b. Administration of corticosteroids
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- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing a tendon injury involves formation of a tenoma

11.

Which one of the following cases is considered a cleancontaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

12.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for “eczema.” Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

13.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

14.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

15.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

16.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension
- d. Diabetes
- e. Type I hyperlipoproteinemia

17.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

18.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

19.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilatation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

20.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

IV-06

1.

Wasting of the intrinsic muscles of the hand can be expected to follow injury of the

- a. Ulnar nerve
- b. Radial nerve
- c. Brachial nerve
- d. Axillary nerve
- e. Thenar and hypothenar nerves

2.

Although wide surgical excision is the traditional treatment for malignant melanoma, narrow excision of thin (less than 1 mm deep) stage I melanomas has been found to be equally safe and effective when the margin of resection is as small as

- a. 3 mm
- b. 5 mm
- c. 1 cm
- d. 3 cm
- e. 5 cm

3.

With regard to wound healing, which one of the following statements is correct?

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- b. Monocytes are essential for normal wound healing
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- b. *Clostridium tetani*
- c. *Staphylococcus*
- d. *Escherichia coli*

e. *Streptococcus*

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The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine
- e. Cloxacillin

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Proper treatment for frostbite consists of

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- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
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8.

Which one of the following cases is considered a cleancontaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

9.

A 45-year-old woman undergoes an uneventful laparoscopic

cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither sensitive nor specific; therefore diagnosis should be based on clinical findings
- d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis
- e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

10.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions is a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

11.

A 64-year-old man is admitted 14 mo following a femoropopliteal bypass graft procedure with a cold foot and no graft pulse. Urokinase infusion is begun. Which of the following statements regarding management is true?

- a. Clot lysis is accomplished in 25% of patients
- b. After successful clot lysis, surgical revision of the opened graft should be considered only if early reocclusion occurs
- c. With optimal treatment, a 20% reocclusion rate is expected within 1 year
- d. Urokinase is less successful in lysing acute thromboses of prosthetic grafts than those of vein grafts
- e. Streptokinase is the preferred thrombolytic agent when treating graft occlusions

12.

An 80-year-old man is admitted to the hospital complaining of nausea, abdominal pain, distention, and diarrhea. A cautiously performed transanal contrast study reveals an “apple core” configuration in the rectosigmoid. Appropriate management at this time would include

- a. Colonoscopic decompression and rectal tube placement
- b. Saline enemas and digital disimpaction of fecal matter from the rectum
- c. Colon resection and proximal colostomy
- d. Oral administration of metronidazole and checking a *Clostridium difficile* titer
- e. Evaluation of an electrocardiogram and obtaining an angiogram to evaluate for colonic mesenteric ischemia

13.

Indications for operation in Crohn’s disease include which of the following?

- a. Intestinal obstruction
- b. Enterovesical fistula
- c. Ileum–ascending colon fistula
- d. Enterovaginal fistula
- e. Free perforation

14.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

15.

In the management of echinococcal liver cysts

- a. A large cyst should be treated by percutaneous aspiration of its contents
- b. Medical treatment with albendazole usually preempts the need for surgical drainage
- c. Negative serologic tests suggest that the cyst is chronic and inactive and that no treatment is indicated
- d. Leakage of cyst fluid puts the patient at risk for anaphylactic reaction
- e. Coexistent extrahepatic cysts are uncommon

16.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
- e. Even though ligated veins thrombose, they often recanalize

17.

The subclavian steal syndrome is associated with which of the following hemodynamic abnormalities?

- a. Antegrade flow through a vertebral artery
- b. Venous congestion of upper extremities
- c. Occlusion of the carotid artery
- d. Occlusion of the vertebral artery
- e. Occlusion of the subclavian artery

18.

Among patients with suspected (occult) coronary artery disease, the occurrence of postoperative ischemic cardiac events following peripheral vascular surgery correlates closely with abnormal preoperative

- a. Exercise stress testing
- b. Gated blood pool studies that demonstrate an ejection fraction of 50% or less
- c. Coronary angiography
- d. Dipyridamole-thallium imaging
- e. Transesophageal echocardiography

19.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

20.

Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

IV-07

1.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for “eczema.” Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

2.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient’s initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

3.

Which one of the following statements regarding the above burn patient is correct?

- a. High-dose penicillin should be administered prophylactically
- b. Tetanus prophylaxis is not necessary if the patient has been immunized in the previous 3 years
- c. This burn can be estimated at 60% total body surface area using the “rule of nines”
- d. The most sensitive indicator of adequacy of fluid resuscitation is heart rate
- e. This patient should undergo immediate intubation for airway protection and oxygen administration

4.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions
- e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

5.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

6.

Which of the following is true with regard to wound contraction?

- a. It is the primary process affecting closure of a sutured or stapled surgical wound
- b. Bacterial colonization significantly slows the process of contraction
- c. It may account for a maximum of 50% decrease in the size of a wound
- d. It is based on specialized fibroblasts that contain actin myofilaments
- e. The percentage reduction of wound size is increased with increased adherency of skin to underlying tissue

7.

True statements regarding Zenker's diverticulum include

- a. Aspiration pneumonitis is unlikely
- b. It is a congenital abnormality
- c. The most common symptom is a sensation of high obstruction on swallowing
- d. It is a traction-type diverticulum
- e. Treatment is restriction of certain foods

8.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right

side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

9.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy
- e. Detorsion of the volvulus and colopexy or resection

10.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilatation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

11.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics
- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

12.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

13.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

14.

A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

- a. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
- b. Noninvasive hemodynamic testing is required
- c. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse
- d. The source of the embolus is most likely the left ventricle
- e. Arteriography is mandatory prior to operative intervention

15.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a "coiled spring" appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad

e. Duodenojejunostomy

16.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

17.

Indications for placement of the device pictured in the abdominal x-ray shown below include

- a. Recurrent pulmonary embolus despite adequate anticoagulation therapy
- b. Axillary vein thrombosis
- c. Pulmonary embolus in a patient with a perforated duodenal ulcer
- d. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
- e. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

18.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes become palpable
- e. Intralesional bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

19.

Which of the following statements concerning the condition depicted on the arteriogram shown below is true?

- a. Surgery should be performed only if the patient is symptomatic

- b. Limb loss is a definite risk in the untreated patient
- c. The contralateral limb is affected in a similar fashion in over 75% of cases
- d. Embolization is unlikely
- e. Bleeding into the leg is the most common presentation

20.

A 65-year-old male cigarette smoker reports onset of claudication of his right lower extremity approximately 3 wk previously. His walking radius is limited to three blocks before the onset of claudication. Physical examination reveals palpable pulses in the entire left lower extremity, but no pulses are palpable below the right groin level. Noninvasive flow studies are obtained, which are pictured below. Which of the following statements regarding this patient's condition is true?

- a. Femoropopliteal bypass is indicated on a relatively urgent basis in order to salvage the right leg
- b. The occlusive process is in the right superficial femoral artery, with flow to the right foot supplied by the profunda femoris artery
- c. About one-half of patients with similar symptoms will ultimately require amputation
- d. The occlusive process is most likely caused by embolic disease
- e. The noninvasive studies suggest iliac as well as superficial femoral occlusive disease on the right side

IV-08

1.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

2.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

3.

Which one of the following statements regarding the above burn patient is correct?

- a. High-dose penicillin should be administered prophylactically
- b. Tetanus prophylaxis is not necessary if the patient has been immunized in the previous 3 years
- c. This burn can be estimated at 60% total body surface area using the "rule of nines"
- d. The most sensitive indicator of adequacy of fluid resuscitation is heart rate
- e. This patient should undergo immediate intubation for airway protection and oxygen administration

4.

The true statement regarding tendon injuries in the hand is

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx

- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
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A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for “eczema.” Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

6.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

7.

Wasting of the intrinsic muscles of the hand can be expected to follow injury of the

- a. Ulnar nerve
- b. Radial nerve
- c. Brachial nerve
- d. Axillary nerve
- e. Thenar and hypothenar nerves

8.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

9.

Which of the following is true with regard to wound contraction?

- a. It is the primary process affecting closure of a sutured or stapled surgical wound
- b. Bacterial colonization significantly slows the process of contraction
- c. It may account for a maximum of 50% decrease in the size of a wound
- d. It is based on specialized fibroblasts that contain actin myofilaments
- e. The percentage reduction of wound size is increased with increased adherence of skin to underlying tissue

10.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

11.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound

management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

12.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix. Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

13.

Two days after admission to the hospital for a myocardial infarction, a 65-year-old man complains of severe, unremitting midabdominal pain. His cardiac index is 1.6. Physical examination is remarkable for an absence of peritoneal irritation or distention despite the patient's persistent complaint of severe pain. Serum lactate is 9 (normal less than 3). In managing this problem you should

- a. Perform computed tomography
- b. Perform mesenteric angiography
- c. Perform laparoscopy
- d. Perform flexible sigmoidoscopy to assess the distal colon and rectum
- e. Defer decision to explore the abdomen until the arterial lactate is greater than 10

14.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

15.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

16.

Which statement regarding contrast venography is true?

- a. It is more accurate than Doppler analysis and B-mode ultrasound (duplex scan) at detecting thrombi in the deep veins responsible for pulmonary emboli
- b. It identifies incompetent deep, superficial, and perforating veins
- c. It is totally noninvasive, painless, and safe
- d. It is easily performed in a vascular laboratory or radiology suite or at the bedside
- e. It is particularly sensitive in identifying the proximal extent of an iliofemoral thrombus

17.

True statements regarding hemobilia include which of the following?

- a. The classic presentation includes biliary colic, jaundice, and gastrointestinal bleeding
- b. Spontaneous bleeding secondary to hematologic disorders is the major cause of this disorder
- c. Percutaneous transhepatic catheter placement of an absorbable gelatin sponge (Gelfoam) is the preferred treatment in cases of significant intrahepatic bleeding
- d. Angiography and endoscopy have no role in the treatment of intrahepatic bleeding

e. Arterial embolization is advocated for hemobilia from the extrahepatic bile ducts

18.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine
- e. Cloxacillin

19.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

20.

During evaluation for the repair of an expanding abdominal aortic aneurysm, a patient is discovered to have a horseshoe kidney. The optimum surgical approach would be

- a. Midline abdominal incision, preservation of the renal isthmus
- b. Midline abdominal incision, division of the renal isthmus
- c. Retroperitoneal approach, implantation of anomalous renal arteries
- d. Nephrectomy, repair of aneurysm, chronic dialysis
- e. Repair of aneurysm after autotransplantation of the kidney into the iliac fossa

IV-09

1.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics
- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

2.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine
- e. Cloxacillin

3.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

4.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

5.

Which of the following statements regarding stress ulceration is true?

- It is true ulceration, extending into and through the muscularis mucosa
- It classically involves the antrum
- Increased secretion of gastric acid has been shown to play a causative role
- It frequently involves multiple sites
- It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

6.

The true statement regarding tendon injuries in the hand is

- Flexor digitorum superficialis inserts on the distal phalanx
- Flexor digitorum profundus inserts on the middle phalanx
- The tendons of flexor digitorum superficialis arise from a common muscle belly
- The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- The process of healing a tendon injury involves formation of a tenoma

7.

The response to shock includes which of the following metabolic effects?

- Increase in sodium and water excretion
- Increase in renal perfusion
- Decrease in cortisol levels
- Hyperkalemia
- Hypoglycemia

8.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- Radiotherapy will be an important part of subsequent therapy
- The likelihood of groin node metastases is remote
- Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- Groin dissection is not indicated unless and until groin nodes become palpable
- Intralesional bacille Calmette- Guйrin (BCG) administration has

been found to aid in local control in the majority of patients

9.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

10.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

11.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

12.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions

e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

13.

A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulitis of the right foot. The patient's underlying problem is

- a. Popliteal entrapment syndrome
- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

14.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in the field but none on arrival in the emergency room
- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

15.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury

e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

16.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

17.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

18.

Wasting of the intrinsic muscles of the hand can be expected to follow injury of the

- a. Ulnar nerve
- b. Radial nerve
- c. Brachial nerve
- d. Axillary nerve
- e. Thenar and hypothenar nerves

19.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an abdominal mass, and jaundice

- d. Cystic dilation of the intrahepatic biliary tree may coexist and is managed in a similar fashion
- e. Surgery should be reserved for symptomatic patients

20.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

IV-10

1.

Which one of the following cases is considered a cleancontaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

2.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

3.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastrosocopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

4.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)

- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

5.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

6.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine
- e. Cloxacillin

7.

An 88-year-old man with a history of end-stage renal failure, severe coronary artery disease, and brain metastases from lung cancer presents with acute cholecystitis. His family wants “everything done.” The best management option in this patient would be

- a. Tube cholecystostomy
- b. Open cholecystectomy
- c. Laparoscopic cholecystectomy
- d. Intravenous antibiotics followed by elective cholecystectomy
- e. Lithotripsy followed by long-term bile acid therapy

8.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal \square 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient’s condition is true?

- a. The mass may cause gastric outlet or extrahepatic biliary

obstruction

- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining
- e. Malignant degeneration occurs in about 25% of cases if left untreated

9.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

10.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

11.

Which one of the following statements regarding the above burn patient is correct?

- a. High-dose penicillin should be administered prophylactically
- b. Tetanus prophylaxis is not necessary if the patient has been immunized in the previous 3 years
- c. This burn can be estimated at 60% total body surface area using the "rule of nines"
- d. The most sensitive indicator of adequacy of fluid resuscitation is heart rate

e. This patient should undergo immediate intubation for airway protection and oxygen administration

12.

During an appendectomy for acute appendicitis, a 4-cm mass is found in the midportion of the appendix. Frozen section reveals this lesion to be a carcinoid tumor. Which of the following statements is true?

- a. No further surgery is indicated
- b. A right hemicolectomy should be performed
- c. There is about a 50% chance that this patient will develop the carcinoid syndrome
- d. Carcinoid tumors arise from islet cells
- e. Carcinoid syndrome can occur only in the presence of liver metastases

13.

A 45-year-old woman undergoes an uneventful laparoscopic cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither sensitive nor specific; therefore diagnosis should be based on clinical findings
- d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis
- e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

14.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation

- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

15.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

16.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions
- e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

17.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension
- d. Diabetes
- e. Type I hyperlipoproteinemia

18.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas

determination

- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

19.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a “coiled spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

20.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

V-01

1.

Omeprazole has been added to the H₂ antagonists as a therapeutic approach to the management of acute gastric and duodenal ulcers. It acts by

- a. Blocking breakdown of mucosaldamaging metabolites of NSAIDs
- b. Providing a direct cytoprotective effect
- c. Buffering gastric acids
- d. Inhibiting parietal cell hydrogenpotassium-ATPase
- e. Inhibiting gastrin release and parietal cell acid production

2.

Evidence that a splenectomy might benefit a patient with immune (idiopathic) thrombocytopenic purpura (ITP) includes

- a. A significant enlargement of the spleen
- b. A high reticulocyte count
- c. Megakaryocytic elements in the bone marrow
- d. An increase in the platelet count on cortisone therapy
- e. Patient age of less than 5 years

3.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

4.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to be found?

- a. Villous adenoma
- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

5.

A 55-year-old man complains of chronic intermittent epigastric pain, and gastroscopy demonstrates a 2-cm ulcer of the distal lesser curvature. Endoscopic biopsy yields no malignant tissue. After a 6-wk trial of H₂ blockade and antacid therapy, the ulcer is unchanged. Proper therapy at this point is

- a. Repeat trial of medical therapy
- b. Local excision of the ulcer
- c. Billroth I partial gastrectomy
- d. Billroth I partial gastrectomy with vagotomy
- e. Vagotomy and pyloroplasty

6. A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. After initial resuscitation, this man should undergo

- a. Esophageal balloon tamponade
- b. Barium swallow
- c. Selective angiography
- d. Esophagogastroscopy
- e. Exploratory celiotomy

7.

A spry octogenarian who has never before been hospitalized is admitted with signs and symptoms typical of a small bowel obstruction. Which of the following clinical findings would give the most help in ascertaining the diagnosis?

- a. Coffee-grounds aspirate from the stomach
- b. Aerobilia
- c. A leukocyte count of 40,000/ μ L
- d. A pH of 7.5, PCO₂ of 50 kPa, and paradoxically acid urine
- e. A palpable mass in the pelvis

8.

Which of the following colonic pathologies is thought to have no malignant potential?

- a. Ulcerative colitis
- b. Villous adenomas
- c. Familial polyposis
- d. Peutz-Jeghers syndrome
- e. Crohn's colitis

9.

Laparoscopic cholecystectomy is indicated for symptomatic gallstones in which of the following conditions?

- a. Cirrhosis
- b. Prior upper abdominal surgery
- c. Suspected carcinoma of the gallbladder
- d. Morbid obesity
- e. Coagulopathy

10.

Infants with anorectal anomalies tend to have other congenital anomalies. Associated abnormalities include which of the following?

- a. Abnormalities of the cervical spine
- b. Hydrocephalus
- c. Duodenal atresia
- d. Heart disease
- e. Corneal opacities

11.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions

a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

12.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

13.

Ligation of injured major peripheral veins is rarely preferable to repair,

but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
- e. Even though ligated veins thrombose, they often recanalize

14.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

15.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

16.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants

- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

17.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

18.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

19.

A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulitis of the right foot. The patient's underlying problem is

- a. Popliteal entrapment syndrome
- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

20.

A 76-year-old woman is admitted with back pain and hypotension. A

CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

21.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

22.

Which of the following is true with regard to wound contraction?

- a. It is the primary process affecting closure of a sutured or stapled surgical wound
- b. Bacterial colonization significantly slows the process of contraction
- c. It may account for a maximum of 50% decrease in the size of a wound
- d. It is based on specialized fibroblasts that contain actin myofilaments
- e. The percentage reduction of wound size is increased with increased adherency of skin to underlying tissue

23.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics
- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

24.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

25.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes become palpable
- e. Intralesional bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

26.

Diagnostic abdominal laparoscopy is contraindicated in which of the following patients?

- a. A patient with rebound tenderness following a tangential gunshot wound to the abdomen *
- b. A stable patient with a stab wound to the lower chest wall
- c. A patient with a mass in the head of the pancreas
- d. A young female with pelvic pain and fever
- e. An elderly patient in the intensive care unit suspected of having intestinal ischemia

27.

A patient suspected of having a hemolytic transfusion reaction should be managed with

- a. Removal of nonessential foreign body irritants, e.g., Foley catheter
- b. Fluid restriction
- c. 0.1 M HC1 infusion
- d. Steroids
- e. Fluids and mannitol *

28.

Prophylactic regimens of documented benefit in decreasing the risk of postoperative thromboembolism include

- a. Early ambulation
- b. External pneumatic compression devices placed on the upper extremities *
- c. Elastic stockings
- d. Leg elevation for 24 h postoperatively
- e. Dipyridamole therapy for 48 h postoperatively

29.

Signs and symptoms associated with early sepsis include

- a. Respiratory acidosis
- b. Decreased cardiac output
- c. Hypoglycemia
- d. Increased arteriovenous oxygen difference
- e. Cutaneous vasodilation *

30.

Major alterations in pulmonary function associated with adult respiratory distress syndrome (ARDS) include

- a. Hypoxemia *
- b. Increased pulmonary compliance
- c. Increased resting lung volume
- d. Increased functional residual capacity
- e. Decreased dead space ventilation

V-02

1.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

2.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a “bird’s beak” deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease
- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

3.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements regarding pancreatic carcinoma is true?

- a. The majority of cases present with jaundice alone
- b. CT scan, angiography, and laparoscopy have been unsuccessful in predicting resectability
- c. If a patient is jaundiced, the resectability rate is less than 5%
- d. 99% of patients with pancreatic cancer have metastatic disease at the time of diagnosis
- e. The 5-year survival rate after a Whipple procedure

(pancreaticoduodenectomy) performed for cure is 30–40%

4.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

The procedure of choice is

- a. Simple closure with omental patch
- b. Truncal vagotomy and pyloroplasty
- c. Antrectomy and truncal vagotomy
- d. Highly selective vagotomy
- e. Hemigastrectomy

5.

Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4?

- a. Umbilical hernia
- b. Patent urachus
- c. Patent omphalomesenteric duct
- d. Omphalocele
- e. Gastroschisis

6.

A 48-year-old woman develops pain of the right lower quadrant while playing tennis. The pain progresses and the patient presents to the emergency room later that day with a low-grade fever, a white blood count of 13,000, and complaints of anorexia and nausea as well as persistent, sharp pain of the right lower quadrant. On examination she is tender in the right lower quadrant with muscular spasm and there is a suggestion of a mass effect. An ultrasound is ordered and shows an apparent mass in the abdominal wall. Which of the following is the most likely diagnosis?

- a. Acute appendicitis
- b. Cecal carcinoma
- c. Hematoma of the rectus sheath
- d. Torsion of an ovarian cyst
- e. Cholecystitis

7.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy

- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

8.

- Which statement regarding absorption by the small intestine is true?
- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
 - b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
 - c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
 - d. Aldosterone markedly decreases sodium transport across the gut mucosa
 - e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

9.

- A 32-year-old woman undergoes a cholecystectomy for acute cholecystitis and is discharged home on the sixth postoperative day. She returns to the clinic 8 mo after the operation for a routine visit and is noted by the surgeon to be jaundiced. Laboratory values on readmission show total bilirubin 5.6 mg/dL; direct bilirubin 4.8 mg/dL; alkaline phosphatase 250 IU (normal 21–91 IU); SGOT 52 KU (normal 10–40 KU); SGPT 51 KU (normal 10–40 KU). An ultrasonogram shows dilated intrahepatic ducts. The patient undergoes the transhepatic cholangiogram seen below. Appropriate management is
- a. Choledochoplasty with insertion of a T tube
 - b. End-to-end choledochocholedochal anastomosis
 - c. Roux-en-Y choledochojejunostomy
 - d. Percutaneous transhepatic dilatation
 - e. Choledochoduodenostomy

10.

- After complete removal of a sessile polyp of 2.0 × 1.5 cm found one fingerlength above the anal mucocutaneous margin, the pathologist reports it to have been a villous adenoma that contained carcinoma in situ. You would recommend that this patient undergo
- a. Reexcision of the biopsy site with wider margins
 - b. Abdominoperineal rectosigmoid resection
 - c. Anterior resection of the rectum

- d. External radiation therapy to the rectum
- e. No further therapy

11.

Compensatory mechanisms during acute hemorrhage include

- a. Decreased cerebral and coronary blood flow
- b. Decreased myocardial contractility
- c. Renal and splanchnic vasodilation
- d. Increased respiratory rate *
- e. Decreased renal sodium resorption

12.

An obese 50-year-old woman undergoes a laparoscopic cholecystectomy. In the recovery room she is found to be hypotensive and tachycardic. Her arterial blood gases reveal a pH of 7.29, partial pressure of oxygen of 60 kPa, and partial pressure of CO₂ of 54 kPa.

The most likely cause of this woman's problem is

- a. Acute pulmonary embolism
- b. CO₂ absorption from induced pneumoperitoneum
- c. Alveolar hypoventilation *
- d. Pulmonary edema
- e. Atelectasis from high diaphragm

13.

The accidental aspiration of gastric contents into the tracheobronchial tree should be initially treated by

- a. Tracheal intubation and suctioning *
- b. Steroids
- c. Intravenous fluid bolus
- d. Cricothyroidotomy
- e. High positive end-expiratory pressure

14.

To prepare for operating on a patient with a bleeding history diagnosed as von Willebrand's disease (recessive), you would give

- a. High-purity factor VIII:C concentrates
- b. Low-molecular-weight dextran
- c. Fresh frozen plasma (FFP)
- d. Cryoprecipitate *
- e. Whole blood

15.

Central venous pressure (CVP) may be decreased by

- a. Pulmonary embolism
- b. Hypervolemia
- c. Positive-pressure ventilation
- d. Pneumothorax
- e. Gram-negative sepsis *

16.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for “eczema.” Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

17.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient’s initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

18.

Which one of the following statements regarding the above burn patient is correct?

- a. High-dose penicillin should be administered prophylactically
- b. Tetanus prophylaxis is not necessary if the patient has been immunized in the previous 3 years
- c. This burn can be estimated at 60% total body surface area using

the “rule of nines”

d. The most sensitive indicator of adequacy of fluid resuscitation is heart rate

e. This patient should undergo immediate intubation for airway protection and oxygen administration

19.

True statements regarding squamous cell carcinoma of the lip include

a. The lesion often arises in areas of persistent hyperkeratosis

b. More than 90% of cases occur on the upper lip

c. The lesion constitutes 30% of all cancers of the oral cavity

d. Radiotherapy is considered inappropriate treatment for these lesions

e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

20.

Which one of the following cases is considered a cleancontaminated wound?

a. Open cholecystectomy for cholelithiasis

b. Herniorrhaphy with mesh repair

c. Lumpectomy with axillary node dissection

d. Appendectomy with walled-off abscess

e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

21.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

a. Air in the right pleural space

b. Shifting of the mediastinum toward the right

c. Shifting of the trachea toward the right

d. Dilation of the intrathoracic vena cava

e. Hyperinflation of the left lung

22.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

a. Choledochoduodenostomy

- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

23.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a “coiled spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

24.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

25.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation

- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

26.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

27.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

28.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

29.

The subclavian steal syndrome is associated with which of the following hemodynamic abnormalities?

- a. Antegrade flow through a vertebral artery
- b. Venous congestion of upper extremities

- c. Occlusion of the carotid artery
- d. Occlusion of the vertebral artery
- e. Occlusion of the subclavian artery

30.

Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

V-03

1.

Among patients with suspected (occult) coronary artery disease, the occurrence of postoperative ischemic cardiac events following peripheral vascular surgery correlates closely with abnormal preoperative

- a. Exercise stress testing
- b. Gated blood pool studies that demonstrate an ejection fraction of 50% or less
- c. Coronary angiography
- d. Dipyridamole-thallium imaging
- e. Transesophageal echocardiography

2.

A 64-year-old man is admitted 14 mo following a femoropopliteal bypass graft procedure with a cold foot and no graft pulse. Urokinase infusion is begun. Which of the following statements regarding management is true?

- a. Clot lysis is accomplished in 25% of patients
- b. After successful clot lysis, surgical revision of the opened graft should be considered only if early reocclusion occurs
- c. With optimal treatment, a 20% reocclusion rate is expected within 1 year
- d. Urokinase is less successful in lysing acute thromboses of prosthetic grafts than those of vein grafts
- e. Streptokinase is the preferred thrombolytic agent when treating graft occlusions

3.

A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

- a. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
- b. Noninvasive hemodynamic testing is required
- c. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse

- d. The source of the embolus is most likely the left ventricle
- e. Arteriography is mandatory prior to operative intervention

4.

Which of the following statements concerning the condition depicted on the arteriogram shown below is true?

- a. Surgery should be performed only if the patient is symptomatic
- b. Limb loss is a definite risk in the untreated patient
- c. The contralateral limb is affected in a similar fashion in over 75% of cases
- d. Embolization is unlikely
- e. Bleeding into the leg is the most common presentation

5.

A 65-year-old male cigarette smoker reports onset of claudication of his right lower extremity approximately 3 wk previously. His walking radius is limited to three blocks before the onset of claudication. Physical examination reveals palpable pulses in the entire left lower extremity, but no pulses are palpable below the right groin level. Noninvasive flow studies are obtained, which are pictured below. Which of the following statements regarding this patient's condition is true?

- a. Femoropopliteal bypass is indicated on a relatively urgent basis in order to salvage the right leg
- b. The occlusive process is in the right superficial femoral artery, with flow to the right foot supplied by the profunda femoris artery
- c. About one-half of patients with similar symptoms will ultimately require amputation
- d. The occlusive process is most likely caused by embolic disease
- e. The noninvasive studies suggest iliac as well as superficial femoral occlusive disease on the right side

6.

A patient suspected of having a hemolytic transfusion reaction should be managed with

- a. Removal of nonessential foreign body irritants, e.g., Foley catheter
- b. Fluid restriction
- c. 0.1 M HC1 infusion
- d. Steroids
- e. Fluids and mannitol *

7.

Prophylactic regimens of documented benefit in decreasing the risk of postoperative thromboembolism include

- a. Early ambulation
- b. External pneumatic compression devices placed on the upper extremities *
- c. Elastic stockings
- d. Leg elevation for 24 h postoperatively
- e. Dipyridamole therapy for 48 h postoperatively

8.

Signs and symptoms associated with early sepsis include

- a. Respiratory acidosis
- b. Decreased cardiac output
- c. Hypoglycemia
- d. Increased arteriovenous oxygen difference
- e. Cutaneous vasodilation *

9.

The etiologic factor implicated in the development of pulmonary insufficiency following major nonthoracic trauma is

- a. Aspiration
- b. Atelectasis
- c. Fat embolism syndrome *
- d. Fluid overload
- e. Pneumonia

10.

Treatment for clostridial myonecrosis (gas gangrene) includes which of the following measures?

- a. Administration of an antifungal agent
- b. Administration of antitoxin
- c. Wide debridement *
- d. Administration of hyperbaric oxygen
- e. Early closure of tissue defects

11.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair

- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

12.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

13.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

14.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

15.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable.

Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

16.

A 45-year-old woman undergoes an uneventful laparoscopic cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither sensitive nor specific; therefore diagnosis should be based on clinical findings
- d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis
- e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

17.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for "eczema." Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

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20.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions
- e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

21.

Which of the following statements concerning imperforate anus is true?

- a. Imperforate anus affects males more frequently than females
- b. In 90% of males, but only 50% of females, the rectum ends below the level of the levator ani complex
- c. The rectum usually ends in a blind pouch
- d. The chance for eventual continence is greater when the rectum has descended to below the levator animuscles
- e. Immediate definitive repair of the anatomic defect is required to

maximize the chance of eventual continence

22.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst
- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

23.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)
- b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

24.

A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. A diagnosis of bleeding esophageal varices is made in this patient. Appropriate initial therapy would be

- a. Intravenous vasopressin
- b. Endoscopic sclerotherapy
- c. Emergency portacaval shunt
- d. Emergency esophageal transection
- e. Esophageal balloon tamponade

25.

Which of the following statements concerning Hirschsprung's disease is true?

- a. It is initially treated by colostomy
- b. It is best diagnosed in the newborn period by barium enema
- c. It is characterized by the absence of ganglion cells in the transverse colon
- d. It is associated with a high incidence of genitourinary tract anomalies
- e. It is the congenital disease that most commonly leads to subsequent fecal incontinence

26.

A 36-h-old infant presents with bilious vomiting and an increasingly distended abdomen. At exploration the segment below is found as the point of obstruction. Which of the following statements regarding this finding is true?

- a. Resection with primary anastomosis should not be performed
- b. Gentle, persistent traction on the specimen usually corrects the defect and removes the need for a resection
- c. The lesion is much more common in the jejunum than in the ileum in this age group
- d. This problem is probably related to mesenteric vascular insufficiency
- e. A properly monitored barium enema might have corrected this defect and removed the need for an operation

27.

For a symptomatic partial duodenal obstruction secondary to an annular pancreas, the operative treatment of choice is

- a. A Whipple procedure
- b. Gastrojejunostomy
- c. Vagotomy and gastrojejunostomy
- d. Partial resection of the annular pancreas
- e. Duodenojejunostomy

28.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent

- exudate. The correct procedure is to
- Close the abdomen after culturing the exudate
 - Perform a standard appendectomy
 - Resect the involved terminal ileum
 - Perform the ileocolic resection
 - Perform an ileocolostomy to bypass the involved terminal ileum

29.

A 30-year-old man with a duodenal ulcer is being considered for surgery because of intractable pain and a previous bleeding episode. Serum gastrin levels are found to be over 1000 pg/mL (normal 40–150) on three separate determinations. Another 30-year-old man with the identical clinical situation presented in the previous question is being considered for surgery. His serum gastrin level, however, is 150

- _ 10 pg/mL on three determinations. The surgeon should perform
- An arteriogram
 - A secretin stimulation test
 - A total gastrectomy
 - A subtotal gastrectomy
 - A highly selective vagotomy

30.

The most common clinical presentation of idiopathic retroperitoneal fibrosis is

- Ureteral obstruction
- Leg edema
- Calf claudication
- Jaundice
- Intestinal obstruction

V-04

1.

Major alterations in pulmonary function associated with adult respiratory distress syndrome (ARDS) include

- a. Hypoxemia *
- b. Increased pulmonary compliance
- c. Increased resting lung volume
- d. Increased functional residual capacity
- e. Decreased dead space ventilation

2.

Dopamine is a frequently used drug in critically ill patients because

- a. At high doses it increases splanchnic flow
- b. At high doses it increases coronary flow*
- c. At low doses it decreases heart rate
- d. At low doses it lowers peripheral resistance
- e. It inhibits catecholamine release

3.

Compensatory mechanisms during acute hemorrhage include

- a. Decreased cerebral and coronary blood flow
- b. Decreased myocardial contractility
- c. Renal and splanchnic vasodilation
- d. Increased respiratory rate *
- e. Decreased renal sodium resorption

4.

Signs and symptoms of hemolytic transfusion reactions include

- a. Hypothermia
- b. Hypertension
- c. Polyuria
- d. Abnormal bleeding *
- e. Hypesthesia at the transfusion site

5.

Diagnostic abdominal laparoscopy is contraindicated in which of the following patients?

- a. A patient with rebound tenderness following a tangential gunshot wound to the abdomen *
- b. A stable patient with a stab wound to the lower chest wall
- c. A patient with a mass in the head of the pancreas
- d. A young female with pelvic pain and fever

e. An elderly patient in the intensive care unit suspected of having intestinal ischemia

6.

During an operation for carcinoma of the hepatic flexure of the colon, an unexpected discontinuous 3-cm metastasis is discovered in the edge of the right lobe of the liver. The surgeon should

- a. Terminate the operation, screen the patient for evidence of other metastases, and plan further therapy after the reevaluation
- b. Perform a right hemicolectomy and a right hepatic lobectomy
- c. Perform a right hemicolectomy and a wedge resection of the metastasis
- d. Perform a cecostomy and schedule reoperation after a course of systemic chemotherapy
- e. Perform local resection of the primary colon cancer and plan radiation therapy for the lesion on the liver

7.

Which of the following hernias follows the path of the spermatic cord within the cremaster muscle?

- a. Femoral
- b. Direct inguinal
- c. Indirect inguinal
- d. Spigelian
- e. Interparietal

8.

In determining the proper treatment for a sliding hiatal hernia, the most useful step would be

- a. Barium swallow with cinefluoroscopy during Valsalva maneuver
- b. Flexible endoscopy
- c. 24-h monitoring of esophageal pH
- d. Measuring the size of the hernia
- e. Assessing the patient's smoking and drinking history

9.

Which of the following statements regarding the etiology of obstructive jaundice is true?

- a. A markedly elevated SGOT and SGPT are usually associated with obstructive jaundice
- b. When extrahepatic biliary obstruction is suspected, the first test should be endoscopic ultrasonography (EUS)
- c. A Klatskin tumor will result in extrahepatic ductal dilation only

- d. A liver-spleen scan will add significantly to the diagnostic workup for obstructive jaundice
- e. Carcinoma of the head of the pancreas can cause deep epigastric or back pain in as many as 80% of patients

10.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

11.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

12.

The true statement regarding tendon injuries in the hand is

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx
- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing a tendon injury involves formation of a tenoma

13.

Which one of the following cases is considered a cleancontaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair

- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

14.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics
- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

15.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

16.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in the field but none on arrival in the emergency room
- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

17.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus

- b. *Staphylococcus aureus*
- c. *Pseudomonas aeruginosa*
- d. *Clostridium perfringens*
- e. *Escherichia coli*

18.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

19.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

20.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilatation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

21.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

22.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

23.

Which of the following is most likely to require surgical correction?

- a. Large sliding esophageal hiatal hernia
- b. Paraesophageal hiatal hernia
- c. Traction diverticulum of esophagus
- d. Schatzki's ring of distal esophagus
- e. Esophageal web

24.

A 65-year-old man who is hospitalized with pancreatic carcinoma develops abdominal distention and obstipation. The following abdominal radiograph is obtained. Appropriate management would best be achieved by

- a. Urgent colostomy or cecostomy
- b. Discontinuation of anticholinergic medications and narcotics and correction of metabolic disorders
- c. Digital disimpaction of a fecal mass in the rectum
- d. Diagnostic and therapeutic colonoscopy
- e. Detorsion of the volvulus and colopexy or resection

25.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital
- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common
- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

26.

Indications for placement of the device pictured in the abdominal x-ray shown below include

- a. Recurrent pulmonary embolus despite adequate anticoagulation therapy
- b. Axillary vein thrombosis
- c. Pulmonary embolus in a patient with a perforated duodenal ulcer
- d. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
- e. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

27.

Two days after admission to the hospital for a myocardial infarction, a 65-year-old man complains of severe, unremitting midabdominal pain. His cardiac index is 1.6. Physical examination is remarkable for an absence of peritoneal irritation or distention despite the patient's persistent complaint of severe pain. Serum lactate is 9 (normal less than 3). In managing this problem you should

- a. Perform computed tomography
- b. Perform mesenteric angiography
- c. Perform laparoscopy
- d. Perform flexible sigmoidoscopy to assess the distal colon and rectum
- e. Defer decision to explore the abdomen until the arterial lactate is greater than 10

28.

Among patients with suspected (occult) coronary artery disease, the occurrence of postoperative ischemic cardiac events following peripheral vascular surgery correlates closely with abnormal

preoperative

- a. Exercise stress testing
- b. Gated blood pool studies that demonstrate an ejection fraction of 50% or less
- c. Coronary angiography
- d. Dipyridamole-thallium imaging
- e. Transesophageal echocardiography

29.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

30.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

V-05

1.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

2.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

3.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below. This patient should be advised that

The best initial diagnostic examination would be

- a. Transcranial Doppler studies
- b. Doppler ultrasonography (duplex)
- c. Spiral CT angiography
- d. Arch aortogram with selective carotid artery injections
- e. Magnetic resonance arteriogram (MRA)

4.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

5.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

6.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

7.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

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A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks

in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

9.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

10.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

11.

The hernia most likely to cause acute respiratory distress in infants Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia

- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

12.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

13.

A 46-year-old patient with gastric outlet obstruction secondary to ulcer disease and severe inflammation around the pylorus and first and second portions of the duodenum

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

14.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

15.

Indications for surgical removal of polypoid lesions of the gallbladder

include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years
- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

16.

Dieulafoy's lesion of the stomach is characterized by

- a. A large mucosal defect with underlying, friable vascular plexus
- b. Frequent rebleeding after endoscopic treatment
- c. Massive bleeding that requires subtotal gastrectomy
- d. Location in the proximal stomach
- e. Acid-peptic changes of the gastric mucosa

17.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

18.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

19.

Correct statements concerning intussusception in infants include which of the following?

- a. Recurrence rates following treatment are high
- b. It is frequently preceded by a gastrointestinal viral illness
- c. A 1- to 2-wk period of parenteral alimentation should precede surgical reduction when surgery is required
- d. Hydrostatic reduction without surgery rarely provides successful treatment
- e. The most common type occurs at the junction of the descending

colon and sigmoid colon

20.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Regarding potential complications in this patient, which of the following statements is true?

- a. The occurrence of toxic megacolon is common
- b. Perforation occurs in about 25% of patients with similar disease
- c. Fistulas between the colon and segments of intestine, bladder, vagina, urethra, and skin may develop
- d. Extraintestinal manifestations including uveitis and erythema nodosum would be exceedingly rare in this patient
- e. This patient would be at no increased risk for the development of cancer of the colon as compared with an age-matched population

21.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes become palpable
- e. Intralesional bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

22.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

23.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for "eczema." Correct statements

concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

24.

Which one of the following cases is considered a cleancontaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

25.

While you are on duty in the emergency room, a 12-year-old boy arrives with pain and inflammation over the ball of his left foot and red streaks extending up the inner aspect of his leg. He remembers removing a wood splinter from the sole of his foot on the previous day. The most likely infecting organism is

- a. Clostridium perfringens
- b. Clostridium tetani
- c. Staphylococcus
- d. Escherichia coli
- e. Streptococcus

26.

Prophylactic regimens of documented benefit in decreasing the risk of postoperative thromboembolism include

- a. Early ambulation
- b. External pneumatic compression devices placed on the upper extremities *
- c. Elastic stockings
- d. Leg elevation for 24 h postoperatively
- e. Dipyridamole therapy for 48 h postoperatively

27.

Signs and symptoms associated with early sepsis include

- a. Respiratory acidosis
- b. Decreased cardiac output

- c. Hypoglycemia
- d. Increased arteriovenous oxygen difference
- e. Cutaneous vasodilation *

28.

An obese 50-year-old woman undergoes a laparoscopic cholecystectomy. In the recovery room she is found to be hypotensive and tachycardic. Her arterial blood gases reveal a pH of 7.29, partial pressure of oxygen of 60 kPa, and partial pressure of CO₂ of 54 kPa.

The most likely cause of this woman's problem is

- a. Acute pulmonary embolism
- b. CO₂ absorption from induced pneumoperitoneum
- c. Alveolar hypoventilation *
- d. Pulmonary edema
- e. Atelectasis from high diaphragm

29.

The accidental aspiration of gastric contents into the tracheobronchial tree should be initially treated by

- a. Tracheal intubation and suctioning *
- b. Steroids
- c. Intravenous fluid bolus
- d. Cricothyroidotomy
- e. High positive end-expiratory pressure

30.

The etiologic factor implicated in the development of pulmonary insufficiency following major nonthoracic trauma is

- a. Aspiration
- b. Atelectasis
- c. Fat embolism syndrome *
- d. Fluid overload
- e. Pneumonia

V-06

1.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained.

The lesion is most likely a

- a. Pancreatic pseudocyst
- b. Pancreatic adenocarcinoma
- c. Pancreatic cystadenocarcinoma
- d. Retroperitoneal lymphoma
- e. Pancreatic serous cystadenoma

2.

An 18-year-old woman presents with abdominal pain, fever, and leukocytosis. With the presumptive diagnosis of appendicitis, a right lower quadrant (McBurney) incision is made and the lesion pictured below is delivered. The process is 50 cm proximal to the ileocecal valve. This lesion

- a. Can best be diagnosed by preoperative angiogram, which should be done whenever the diagnosis is suspected
- b. Should routinely be removed when incidentally discovered during celiotomy
- c. Is embryologically derived from a persistent vitelline duct (omphalomesenteric duct)
- d. Often contains ectopic adrenal tissue
- e. Is frequently associated with cutaneous flushing and episodic tachycardia

3.

Prophylactic regimens of documented benefit in decreasing the risk of postoperative thromboembolism include

- a. Early ambulation
- b. External pneumatic compression devices placed on the upper extremities *
- c. Elastic stockings
- d. Leg elevation for 24 h postoperatively
- e. Dipyridamole therapy for 48 h postoperatively

4.

A 41-year-old man complains of regurgitation of saliva and of ingested but undigested food. An esophagram reveals a "bird's beak" deformity. Which of the following statements is true about this condition?

- a. Chest pain is common in the advanced stages of this disease

- b. More patients are improved by forceful dilation than by surgical intervention
- c. Manometry can be expected to show high resting pressures of the lower esophageal sphincter
- d. Surgical treatment primarily consists of resection of the distal esophagus with reanastomosis to the stomach above the diaphragm
- e. Patients with this disease are at no increased risk for the development of carcinoma

5.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

6.

Which of the following is true with regard to wound contraction?

- a. It is the primary process affecting closure of a sutured or stapled surgical wound
- b. Bacterial colonization significantly slows the process of contraction
- c. It may account for a maximum of 50% decrease in the size of a wound
- d. It is based on specialized fibroblasts that contain actin myofilaments
- e. The percentage reduction of wound size is increased with increased adherency of skin to underlying tissue

7.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements about this lesion is true?

- a. Clinical and laboratory findings together establish a preoperative diagnosis
- b. Significant weight loss and back pain are the typical presentation
- c. The lesion may be multilocular or calcified
- d. It is unlikely to be cured by resection if large
- e. It is associated with a history of pancreatitis

8.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics

- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

9.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. A patient with a history of familial polyposis undergoes a diagnostic polypectomy. Which of the following types of polyps is most likely to be found?

- a. Villous adenoma
- b. Hyperplastic polyp
- c. Adenomatous polyp
- d. Retention polyp
- e. Pseudopolyp

10.

An 8-lb infant, born following uncomplicated labor and delivery, is noted to have a unilateral cleft lip and palate. The parents should be advised that

- a. The child almost certainly has other congenital anomalies
- b. Rehabilitation requires adjunctive speech therapy
- c. Lip repair is indicated at 1 year of age
- d. Palate repair is indicated prior to 6 mo of age
- e. Cosmetic revisions to the nose should be performed at the same time as cleft lip repair

11.

A previously healthy 80-yearold woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. What is the most common serious complication of an end colostomy?

- a. Bleeding
- b. Skin breakdown
- c. Parastomal hernia
- d. Colonic perforation during irrigation
- e. Stomal prolapse

12.

Which of the following statements concerning the condition depicted on the arteriogram shown below is true?

- a. Surgery should be performed only if the patient is symptomatic
- b. Limb loss is a definite risk in the untreated patient
- c. The contralateral limb is affected in a similar fashion in over 75% of

cases

- d. Embolization is unlikely
- e. Bleeding into the leg is the most common presentation

13.

A cirrhotic patient with abnormal coagulation studies due to hepatic synthetic dysfunction requires an urgent cholecystectomy. A transfusion of fresh frozen plasma is planned to minimize the risk of bleeding due to surgery. The optimal timing of this transfusion would be

- a. The day before surgery
- b. The night before surgery
- c. On call to surgery
- d. Intraoperatively
- e. In the recovery room

14.

A previously healthy 80-year-old woman presents with early satiety and abdominal fullness. The CT scan shown below is obtained. Which of the following statements regarding pancreatic carcinoma is true?

- a. The majority of cases present with jaundice alone
- b. CT scan, angiography, and laparoscopy have been unsuccessful in predicting resectability
- c. If a patient is jaundiced, the resectability rate is less than 5%
- d. 99% of patients with pancreatic cancer have metastatic disease at the time of diagnosis
- e. The 5-year survival rate after a Whipple procedure (pancreaticoduodenectomy) performed for cure is 30–40%

15.

Signs and symptoms of hemolytic transfusion reactions include

- a. Hypothermia
- b. Hypertension
- c. Polyuria
- d. Abnormal bleeding
- e. Hypesthesia at the transfusion site

16.

A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. After initial resuscitation, this man should undergo

- a. Esophageal balloon tamponade
- b. Barium swallow
- c. Selective angiography
- d. Esophagogastrosocopy
- e. Exploratory celiotomy

17.

Diagnostic abdominal laparoscopy is contraindicated in which of the following patients?

- a. A patient with rebound tenderness following a tangential gunshot wound to the abdomen *
- b. A stable patient with a stab wound to the lower chest wall
- c. A patient with a mass in the head of the pancreas
- d. A young female with pelvic pain and fever
- e. An elderly patient in the intensive care unit suspected of having intestinal ischemia

18.

A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. A diagnosis of bleeding esophageal varices is made in this patient. Appropriate initial therapy would be

- a. Intravenous vasopressin
- b. Endoscopic sclerotherapy
- c. Emergency portacaval shunt
- d. Emergency esophageal transection
- e. Esophageal balloon tamponade

19.

A patient suspected of having a hemolytic transfusion reaction should be managed with

- a. Removal of nonessential foreign body irritants, e.g., Foley catheter
- b. Fluid restriction
- c. 0.1 M HCl infusion
- d. Steroids
- e. Fluids and mannitol

20.

A previously healthy 9-year-old child comes to the emergency room because of fulminant upper gastrointestinal bleeding. The hemorrhage is most likely to be the result of

- a. Esophageal varices
- b. Mallory-Weiss syndrome
- c. Gastritis
- d. A gastric ulcer
- e. A duodenal ulcer

21.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

22.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

23.

A 64-year-old man is admitted 14 mo following a femoropopliteal bypass graft procedure with a cold foot and no graft pulse. Urokinase infusion is begun. Which of the following statements regarding management is true?

- a. Clot lysis is accomplished in 25% of patients
- b. After successful clot lysis, surgical revision of the opened graft should be considered only if early reocclusion occurs
- c. With optimal treatment, a 20% reocclusion rate is expected within 1 year
- d. Urokinase is less successful in lysing acute thromboses of

prosthetic grafts than those of vein grafts

e. Streptokinase is the preferred thrombolytic agent when treating graft occlusions

24.

A 60-year-old man is admitted to the coronary care unit with a large anterior wall myocardial infarction. On his second hospital day he begins to complain of the sudden onset of numbness in his right foot and an inability to move his right foot. On physical examination, the right femoral, popliteal, and pedal pulses are no longer palpable. Vascular consultation is obtained. Diagnosis of acute arterial embolus is made. Which of the following statements concerning this condition is true?

- a. Appropriate management would be embolectomy of the right femoral artery under general anesthesia
- b. Noninvasive hemodynamic testing is required
- c. Prophylactic exploration of the contralateral femoral artery should be done despite the presence of a normal pulse
- d. The source of the embolus is most likely the left ventricle
- e. Arteriography is mandatory prior to operative intervention

25.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

26.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes

become palpable

e. Intralesional bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

27.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

28.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

29.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

30.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

V-07

1.

Which of the following statements is true regarding the effects of colon resection?

- a. Net absorption of water by the rectum has been demonstrated in humans
- b. Patients who undergo major colon resections suffer little change in their bowel habits following operation
- c. The left colon is better adapted for water absorption than the right colon
- d. The right colon is better adapted for electrolyte absorption than the left colon
- e. The role of the ileocecal valve in normal fluid homeostasis is well established

2.

During evaluation for the repair of an expanding abdominal aortic aneurysm, a patient is discovered to have a horseshoe kidney. The optimum surgical approach would be

- a. Midline abdominal incision, preservation of the renal isthmus
- b. Midline abdominal incision, division of the renal isthmus
- c. Retroperitoneal approach, implantation of anomalous renal arteries
- d. Nephrectomy, repair of aneurysm, chronic dialysis
- e. Repair of aneurysm after autotransplantation of the kidney into the iliac fossa

3.

Wasting of the intrinsic muscles of the hand can be expected to follow injury of the

- a. Ulnar nerve
- b. Radial nerve
- c. Brachial nerve
- d. Axillary nerve
- e. Thenar and hypothenar nerves

4.

Which statement regarding contrast venography is true?

- a. It is more accurate than Doppler analysis and B-mode ultrasound (duplex scan) at detecting thrombi in the deep veins responsible for pulmonary emboli
- b. It identifies incompetent deep, superficial, and perforating veins
- c. It is totally noninvasive, painless, and safe

- d. It is easily performed in a vascular laboratory or radiology suite or at the bedside
- e. It is particularly sensitive in identifying the proximal extent of an iliofemoral thrombus

5.

Operative planning and preoperative counseling for a patient with a rectal carcinoma can be best provided if the patient is staged before surgery by

- a. Rigid proctoscopy
- b. Barium enema
- c. MRI of the pelvis
- d. CT scanning of the pelvis
- e. Rectal endosonography

6.

Dopamine is a frequently used drug in critically ill patients because

- a. At high doses it increases splanchnic flow
- b. At high doses it increases coronary flow*
- c. At low doses it decreases heart rate
- d. At low doses it lowers peripheral resistance
- e. It inhibits catecholamine release

7.

Although wide surgical excision is the traditional treatment for malignant melanoma, narrow excision of thin (less than 1 mm deep) stage I melanomas has been found to be equally safe and effective when the margin of resection is as small as

- a. 3 mm
- b. 5 mm
- c. 1 cm
- d. 3 cm
- e. 5 cm

8.

Which statement regarding absorption by the small intestine is true?

- a. All but the fat in milk is digested and absorbed in humans by the end of the duodenum
- b. Complete absorption of carbohydrates in a normal meal occurs in the ileum
- c. In short gut syndrome, much of the dietary carbohydrate appears in the stool
- d. Aldosterone markedly decreases sodium transport across the gut

mucosa

e. Enzymes of the brush border of the small intestine can digest and absorb less than 5% of an average protein meal in the absence of the pancreas

9.

Two days after admission to the hospital for a myocardial infarction, a 65-year-old man complains of severe, unremitting midabdominal pain. His cardiac index is 1.6. Physical examination is remarkable for an absence of peritoneal irritation or distention despite the patient's persistent complaint of severe pain. Serum lactate is 9 (normal less than 3). In managing this problem you should

- a. Perform computed tomography
- b. Perform mesenteric angiography
- c. Perform laparoscopy
- d. Perform flexible sigmoidoscopy to assess the distal colon and rectum
- e. Defer decision to explore the abdomen until the arterial lactate is greater than 10

10.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

11.

Local stimuli that inhibit the release of gastrin from the gastric mucosa include which of the following?

- a. Small proteins
- b. 20-proof alcohol
- c. Caffeine
- d. Acidic antral contents
- e. Antral distention

12.

Compensatory mechanisms during acute hemorrhage include

- a. Decreased cerebral and coronary blood flow

- b. Decreased myocardial contractility
- c. Renal and splanchnic vasodilation
- d. Increased respiratory rate
- e. Decreased renal sodium resorption

13.

An obese 50-year-old woman undergoes a laparoscopic cholecystectomy. In the recovery room she is found to be hypotensive and tachycardic. Her arterial blood gases reveal a pH of 7.29, partial pressure of oxygen of 60 kPa, and partial pressure of CO₂ of 54 kPa.

The most likely cause of this woman's problem is

- a. Acute pulmonary embolism
- b. CO₂ absorption from induced pneumoperitoneum
- c. Alveolar hypoventilation
- d. Pulmonary edema
- e. Atelectasis from high diaphragm

14.

While you are on duty in the emergency room, a 12-year-old boy arrives with pain and inflammation over the ball of his left foot and red streaks extending up the inner aspect of his leg. He remembers removing a wood splinter from the sole of his foot on the previous day. The most likely infecting organism is

- a. *Clostridium perfringens*
- b. *Clostridium tetani*
- c. *Staphylococcus*
- d. *Escherichia coli*
- e. *Streptococcus*

15.

Which statement regarding fat absorption is true?

- a. Half of neutral fat can be absorbed in the complete absence of bile and pancreatic lipase
- b. Fifty percent of the total bile salt pool is lost in the stool and replaced daily by synthesis in the liver
- c. Glycerol, short-chain fatty acids, and medium-chain triglycerides exit the mucosal cell in chylomicrons
- d. Conjugated bile salts are actively resorbed in the colon and returned to the liver via the portal vein
- e. Water-insoluble dietary lipid is rendered into soluble micelles through mixing with pancreatic amylase

16.

Indications for placement of the device pictured in the abdominal x-ray shown below include

- a. Recurrent pulmonary embolus despite adequate anticoagulation therapy
- b. Axillary vein thrombosis
- c. Pulmonary embolus in a patient with a perforated duodenal ulcer
- d. Pulmonary embolus due to deep vein thrombosis of the lower extremity that occurs 2 wk postoperatively
- e. Pulmonary embolus in a patient with metastatic pancreatic carcinoma

17.

A previously healthy 15-year-old boy is brought to the emergency room with complaints of about 12 h of progressive anorexia, nausea, and pain of the right lower quadrant. On physical examination, he is found to have a rectal temperature of 38.18°C (100.58°F) and has direct and rebound abdominal tenderness localizing to McBurney's point as well as involuntary guarding in the right lower quadrant. At operation through a McBurney-type incision, the appendix and cecum are found to be normal, but the surgeon is impressed with the marked edema of the terminal ileum, which also has an overlying fibrinopurulent exudate. The correct procedure is to

- a. Close the abdomen after culturing the exudate
- b. Perform a standard appendectomy
- c. Resect the involved terminal ileum
- d. Perform the ileocolic resection
- e. Perform an ileocolostomy to bypass the involved terminal ileum

18.

Signs and symptoms associated with early sepsis include

- a. Respiratory acidosis
- b. Decreased cardiac output
- c. Hypoglycemia
- d. Increased arteriovenous oxygen difference
- e. Cutaneous vasodilation

19.

The appropriate antibiotic to prescribe while awaiting specific culture verification is

- a. Penicillin
- b. Erythromycin
- c. Tetracycline
- d. Azathioprine

e. Cloxacillin

20.

In planning the management of a 2.8-cm epidermoid carcinoma of the anus, the first therapeutic approach should be

- a. Abdominoperineal resection
- b. Wide local resection with bilateringuinal node dissection
- c. Local radiation therapy
- d. Systemic chemotherapy
- e. Combined radiation therapy and chemotherapy

21.

A 65-year-old male cigarette smoker reports onset of claudication of his right lower extremity approximately 3 wk previously. His walking radius is limited to three blocks before the onset of claudication. Physical examination reveals palpable pulses in the entire left lower extremity, but no pulses are palpable below the right groin level. Noninvasive flow studies are obtained, which are pictured below. Which of the following statements regarding this patient's condition is true?

- a. Femoropopliteal bypass is indicated on a relatively urgent basis in order to salvage the right leg
- b. The occlusive process is in the right superficial femoral artery, with flow to the right foot supplied by the profunda femoris artery
- c. About one-half of patients with similar symptoms will ultimately require amputation
- d. The occlusive process is most likely caused by embolic disease
- e. The noninvasive studies suggest iliac as well as superficial femoral occlusive disease on the right side

22.

Major alterations in pulmonary function associated with adult respiratory distress syndrome (ARDS) include

- a. Hypoxemia
- b. Increased pulmonary compliance
- c. Increased resting lung volume
- d. Increased functional residual capacity
- e. Decreased dead space ventilation

23.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Which of the following

statements is true about this patient?

- a. The inflammatory process is likely to be confined to the mucosa and submucosa
- b. The inflammatory reaction is likely to be continuous
- c. Superficial as opposed to linear ulcerations can be expected
- d. Noncaseating granulomata can be expected in up to 50% of patients with similar disease
- e. Microabscesses within crypts are common

24.

A 27-year-old man sustains a single gunshot wound to the left thigh. In the emergency room he is noted to have a large hematoma of his medial thigh. He complains of paresthesias in his foot. On examination there are weak pulses palpable distal to the injury and the patient is unable to move his foot.

The appropriate initial management of this patient would be:

- a. Angiography
- b. Immediate exploration and repair
- c. Fasciotomy of anterior compartment
- d. Observation for resolution of spasm
- e. Local wound exploration

25.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Regarding potential complications in this patient, which of the following statements is true?

- a. The occurrence of toxic megacolon is common
- b. Perforation occurs in about 25% of patients with similar disease
- c. Fistulas between the colon and segments of intestine, bladder, vagina, urethra, and skin may develop
- d. Extraintestinal manifestations including uveitis and erythema nodosum would be exceedingly rare in this patient
- e. This patient would be at no increased risk for the development of cancer of the colon as compared with an age-matched population

26.

Blunt trauma to the abdomen most commonly injures which of the following organs?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine

e. Pancreas

27.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
- e. Even though ligated veins thrombose, they often recanalize

28.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

29.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems to coil upward into the left chest. Which of the following conditions is a compression-type abdominal injury?

- a. Renal vascular injury
- b. Superior mesenteric thrombosis
- c. Mesenteric vascular injury
- d. Avulsion of the splenic pedicle
- e. Diaphragmatic hernia

30.

A teenage boy falls from his bicycle and is run over by a truck. On arrival in the emergency room, he is awake and alert and appears frightened but in no distress. The chest radiograph suggests an airfluid level in the left lower lung field and the nasogastric tube seems

to coil upward into the left chest. The next best step in management is:

- a. Placement of a left chest tube
- b. Immediate thoracotomy
- c. Immediate celiotomy
- d. Esophagogastroscopy
- e. Removal and replacement of the nasogastric tube; diagnostic peritoneal lavage

V-08

1.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital
- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common
- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

2.

Which statement regarding adenocarcinoma of the pancreas is true?

- a. It occurs most frequently in the body of the gland
- b. It carries a 1–2% 5-year survival rate
- c. It is nonresectable if it presents as painless jaundice
- d. It can usually be resected if it presents in the body or tail of the pancreas and does not involve the common bile duct
- e. It is associated with diabetes insipidus

3.

In a stable patient, the management of a complete transection of the common bile duct distal to the insertion of the cystic duct would be optimally performed with a

- a. Choledochoduodenostomy
- b. Loop choledochojejunostomy
- c. Primary end-to-end anastomosis of the transected bile duct
- d. Roux-en-Y choledochojejunostomy
- e. Bridging of the injury with a T tube

4.

Patients with phlebographically confirmed deep vein thrombosis of the calf

- a. Can expect asymptomatic recovery if treated promptly with anticoagulants
- b. May be effectively treated with lowdose heparin
- c. May be effectively treated with pneumatic compression stockings
- d. May be effectively treated with acetylsalicylic acid
- e. Are at risk for significant pulmonary embolism

5.

Central venous pressure (CVP) may be decreased by

- a. Pulmonary embolism
- b. Hypervolemia
- c. Positive-pressure ventilation
- d. Pneumothorax
- e. Gram-negative sepsis

6.

A 32-year-old woman presents to the hospital with a 24-h history of abdominal pain of the right lower quadrant. She undergoes an uncomplicated appendectomy for acute appendicitis and is discharged home on the fourth postoperative day. The pathologist notes the presence of a carcinoid tumor (1.2 cm) in the tip of the appendix. Which of the following statements is true?

- a. The patient should be advised to undergo ileocelectomy
- b. The most common location of carcinoids is in the appendix
- c. The carcinoid syndrome occurs in more than half the patients with carcinoid tumors
- d. The tumor is an apudoma
- e. Carcinoid syndrome is seen only when the tumor is drained by the portal venous system

7.

Following blunt abdominal trauma, a 12-year-old girl develops upper abdominal pain, nausea, and vomiting. An upper gastrointestinal series reveals a total obstruction of the duodenum with a “coiled spring” appearance in the second and third portions. Appropriate management is

- a. Gastrojejunostomy
- b. Nasogastric suction and observation
- c. Duodenal resection
- d. TPN to increase the size of the retroperitoneal fat pad
- e. Duodenojejunostomy

8.

The etiologic factor implicated in the development of pulmonary insufficiency following major nonthoracic trauma is

- a. Aspiration
- b. Atelectasis
- c. Fat embolism syndrome
- d. Fluid overload

e. Pneumonia

9.

Which of the following statements regarding direct inguinal hernias is true?

- a. They are the most common inguinal hernias in women
- b. They protrude medially to the inferior epigastric vessels
- c. They should be opened and ligated at the internal ring
- d. They commonly protrude into the scrotal sac in men
- e. They incarcerate more commonly than indirect hernias

10.

For the first 6 h following surgical repair of a leaking abdominal aortic aneurysm in a 70-year-old man, oliguria (total urinary output of 25 mL since the operation) has become a concern. Of most diagnostic help would be

- a. Renal scan
- b. Aortogram
- c. Left heart preload pressures
- d. Urinary sodium concentration
- e. Creatinine clearance

11.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

12.

A 35-year-old woman presents with pancreatitis. Subsequent endoscopic retrograde cholangiopancreatography (ERCP) reveals the congenital cystic anomaly of her biliary system illustrated in the film below. Which of the following statements regarding this problem is true?

- a. Treatment consists of internal drainage via choledochoduodenostomy
- b. Malignant changes may occur within this structure
- c. Most patients present with the classic triad of epigastric pain, an abdominal mass, and jaundice
- d. Cystic dilation of the intrahepatic biliary tree may coexist and is managed in a similar fashion
- e. Surgery should be reserved for symptomatic patients

13.

Treatment for clostridial myonecrosis (gas gangrene) includes which of the following measures?

- a. Administration of an antifungal agent
- b. Administration of antitoxin
- c. Wide debridement
- d. Administration of hyperbaric oxygen
- e. Early closure of tissue defects

14.

Which of the following statements regarding stress ulceration is true?

- a. It is true ulceration, extending into and through the muscularis mucosa
- b. It classically involves the antrum
- c. Increased secretion of gastric acid has been shown to play a causative role
- d. It frequently involves multiple sites
- e. It is seen following shock or sepsis, but for some unknown reason does not occur following major surgery, trauma, or burns

15.

Following aortic reconstruction, the viability of the sigmoid colon can most reliably be evaluated by

- a. Intraoperative measurement of inferior mesenteric artery stump pressure
- b. Intraoperative Doppler arterial signal in the sigmoid mesentery
- c. Intraoperative observation of bowel peristalsis
- d. Postoperative sigmoidoscopy
- e. Postoperative barium enema

16.

To prepare for operating on a patient with a bleeding history diagnosed as von Willebrand's disease (recessive), you would give

- a. High-purity factor VIII:C concentrates
- b. Low-molecular-weight dextran
- c. Fresh frozen plasma (FFP)
- d. Cryoprecipitate
- e. Whole blood

17.

Which statement concerning cholangitis is correct?

- a. The most common infecting organism is *Staphylococcus aureus*
- b. The diagnosis is suggested by the Charcot triad
- c. The disease occurs primarily in young, immunocompromised patients
- d. Cholecystostomy is the procedure of choice in affected patients
- e. Surgery is indicated once the diagnosis of cholangitis is made

18.

A 25-year-old woman presents to the emergency room complaining of redness and pain in her right foot up to the level of the midcalf. She reports that her right leg has been swollen for at least 15 years, but her left leg has been normal. On physical examination she has a temperature of 39°C (102.2°F). The left leg is normal. The right leg is not tender, but it is swollen from the inguinal ligament down and there is an obvious cellulitis of the right foot. The patient's underlying problem is

- a. Popliteal entrapment syndrome
- b. Acute arterial insufficiency
- c. Primary lymphedema
- d. Deep venous thrombosis
- e. None of the above

19.

After a weekend drinking binge, a 45-year-old alcoholic man presents to the hospital with abdominal pain, nausea, and vomiting. On physical examination the patient is afebrile and is noted to have a palpable tender mass in the epigastrium. Laboratory tests reveal an amylase of 250 U/dL (normal < 180). A CT scan done on the second hospital day is pictured below. Which of the following statements concerning this patient's condition is true?

- a. The mass may cause gastric outlet or extrahepatic biliary obstruction
- b. Spontaneous resolution almost never occurs
- c. The mass is seen only with acute pancreatitis
- d. The mass has an epithelial lining

e. Malignant degeneration occurs in about 25% of cases if left untreated

20.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

21.

A 76-year-old woman is admitted with back pain and hypotension. A CT scan (shown below) is obtained, and the patient is taken to the operating room. Three days after resection of a ruptured abdominal aortic aneurysm, she complains of severe, dull left flank pain and passes bloody mucus per rectum. The diagnosis that must be immediately considered is

- a. Staphylococcal enterocolitis
- b. Diverticulitis
- c. Bleeding AV malformation
- d. Ischemia of the left colon
- e. Bleeding colonic carcinoma

22.

Dieulafoy's lesion of the stomach is characterized by

- a. A large mucosal defect with underlying, friable vascular plexus
- b. Frequent rebleeding after endoscopic treatment
- c. Massive bleeding that requires subtotal gastrectomy
- d. Location in the proximal stomach
- e. Acid-peptic changes of the gastric mucosa

23.

The true statement regarding tendon injuries in the hand is

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx
- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing a tendon injury involves formation of a tenoma

24.

Which one of the following cases is considered a clean-contaminated wound?

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Lumpectomy with axillary node dissection
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon

25.

Correct statements regarding rectal carcinoid tumors include

- a. Endoscopic resection is sufficient for tumors smaller than 2 cm
- b. Patients frequently present with the carcinoid syndrome
- c. They are rapidly growing tumors
- d. Local recurrence is rare with complete resection of the primary lesion
- e. They can develop the carcinoid syndrome even in the absence of liver metastases

26.

A 45-year-old woman undergoes an uneventful laparoscopic cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither sensitive nor specific; therefore diagnosis should be based on clinical findings
- d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis
- e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

27.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

The first step in managing the patient should be to

- a. Take a chest x-ray
- b. Draw arterial blood for blood gas determination
- c. Decompress the right pleural space
- d. Perform pericardiocentesis
- e. Administer intravenous fluids

28.

A 60-year-old woman presents with the skin lesion shown below, which had been present for 10 years. She reported a history of radiation treatments to that hand for "eczema." Correct statements concerning this lesion include

- a. It is more malignant than basal cell carcinoma
- b. It occurs more frequently in brunettes
- c. It rarely metastasizes to regional lymph nodes
- d. It should be treated by radiation therapy
- e. It is rarely associated with chronic sun exposure

29.

A 25-year-old woman arrives in the emergency room following an automobile accident. She is acutely dyspneic with a respiratory rate of 60 breaths/min. Breath sounds are markedly diminished on the right side.

A chest x-ray of this woman before therapy would probably reveal:

- a. Air in the right pleural space
- b. Shifting of the mediastinum toward the right
- c. Shifting of the trachea toward the right
- d. Dilation of the intrathoracic vena cava
- e. Hyperinflation of the left lung

30.

The accidental aspiration of gastric contents into the tracheobronchial tree should be initially treated by

- a. Tracheal intubation and suctioning
- b. Steroids
- c. Intravenous fluid bolus
- d. Cricothyroidotomy
- e. High positive end-expiratory pressure

V-09

1.

Indications for surgical removal of polypoid lesions of the gallbladder include

- a. Size greater than 0.5 cm
- b. Presence of clinical symptoms
- c. Patient age of over 25 years
- d. Presence of multiple small lesions
- e. Absence of shadowing on ultrasound

2.

A patient who has a total pancreatectomy might be expected to develop which of the following complications?

- a. Diabetes mellitus
- b. Hypercalcemia
- c. Hyperphosphatemia
- d. Constipation
- e. Weight gain

3.

A 28-year-old previously healthy woman arrives in the emergency room complaining of 24 h of anorexia and nausea and lower abdominal pain that is more intense in the right lower quadrant than elsewhere. On examination she has peritoneal signs of the right lower quadrant and a rectal temperature of 38.38°C (101.8°F). At exploration through incision of the right lower quadrant, she is found to have a small, contained perforation of a cecal diverticulum. Which of the following statements regarding this situation is true?

- a. Cecal diverticula are acquired disorders
- b. Cecal diverticula are usually multiple
- c. Cecal diverticula are mucosal herniations through the muscularis propria
- d. Diverticulectomy, closure of the cecal defect, and appendectomy may be indicated
- e. An ileocelectomy is indicated even with well-localized inflammation

4.

A 72-year-old patient with an intractable type I ulcer along the incisura with a significant amount of scarring along the entire length of the lesser curvature. Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone

- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

5.

A 46-year-old patient with gastric outlet obstruction secondary to ulcer disease and severe inflammation around the pylorus and first and second portions of the duodenum

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

6.

A 90-year-old patient with a bleeding duodenal ulcer

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

7.

An 80-year-old man is found to have an asymptomatic abdominal mass. An arteriogram is obtained, which is pictured below.

- a. Surgery should be performed, but a mortality of 20% is to be anticipated
- b. Surgery should be performed only if symptoms develop
- c. Surgery will improve his 5-year survival
- d. Surgery this extensive should not be performed in a patient of his age
- e. Surgery should be performed only if follow-up ultrasound demonstrates increasing size

8.

True statements regarding cavernous hemangiomas of the liver in adults include

- a. The majority become symptomatic
- b. They may undergo malignant transformation
- c. They enlarge under hormonal stimulation
- d. They should be resected to avoid spontaneous rupture and

lifethreatening hemorrhage

e. A liver/spleen radionucleotide scan is the most sensitive and specific way to make the diagnosis

9.

A cirrhotic patient with abnormal coagulation studies due to hepatic synthetic dysfunction requires an urgent cholecystectomy. A transfusion of fresh frozen plasma is planned to minimize the risk of bleeding due to surgery. The optimal timing of this transfusion would be

- a. The day before surgery
- b. The night before surgery
- c. On call to surgery
- d. Intraoperatively
- e. In the recovery room

10.

A 36-year-old patient with a type III (pyloric) ulcer that is refractory to medical treatment

Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

11.

A 75-year-old man is found by his internist to have an asymptomatic carotid bruit.

- a. Surgery should be performed, but a mortality of 20% is to be anticipated
- b. Surgery should be performed only if symptoms develop
- c. Surgery will improve his 5-year survival
- d. Surgery this extensive should not be performed in a patient of his age
- e. Surgery should be performed only if follow-up ultrasound demonstrates increasing size

12.

Signs and symptoms of hemolytic transfusion reactions include

- a. Hypothermia
- b. Hypertension
- c. Polyuria

- d. Abnormal bleeding
- e. Hypesthesia at the transfusion site

13.

A 55-year-old man with recent onset of atrial fibrillation presents with a cold, pulseless left lower extremity. He complains of left leg paresthesia and is unable to dorsiflex his toes. Following a successful popliteal embolectomy, with restoration of palpable pedal pulses, the patient is still unable to dorsiflex his toes. The next step in management should be

- a. Electromyography (EMG)
- b. Measurement of anterior compartment pressure
- c. Elevation of the left leg
- d. Immediate fasciotomy
- e. Application of a posterior splint

14.

A congenital hernia that is most frequently discovered as an incidental finding in adults

Match description with the correct abnormality.

- a. Rupture of the diaphragm
- b. Paraesophageal hiatal hernia
- c. Sliding hiatal hernia
- d. Foramen of Bochdalek hernia
- e. Foramen of Morgagni hernia

15.

The accidental aspiration of gastric contents into the tracheobronchial tree should be initially treated by

- a. Tracheal intubation and suctioning
- b. Steroids
- c. Intravenous fluid bolus
- d. Cricothyroidotomy
- e. High positive end-expiratory pressure

16.

Diagnostic abdominal laparoscopy is contraindicated in which of the following patients?

- a. A patient with rebound tenderness following a tangential gunshot wound to the abdomen
- b. A stable patient with a stab wound to the lower chest wall
- c. A patient with a mass in the head of the pancreas
- d. A young female with pelvic pain and fever

e. An elderly patient in the intensive care unit suspected of having intestinal ischemia

17.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Regarding potential complications in this patient, which of the following statements is true?

- a. The occurrence of toxic megacolon is common
- b. Perforation occurs in about 25% of patients with similar disease
- c. Fistulas between the colon and segments of intestine, bladder, vagina, urethra, and skin may develop
- d. Extraintestinal manifestations including uveitis and erythema nodosum would be exceedingly rare in this patient
- e. This patient would be at no increased risk for the development of cancer of the colon as compared with an age-matched population

18.

Conservative management rather than reconstructive arterial surgery is generally recommended for patients with which of the following symptoms or signs of arterial insufficiency?

- a. Ischemic ulceration
- b. Ischemic neuropathy
- c. Claudication
- d. Nocturnal foot pain
- e. Toe gangrene

19.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

20.

A 25-year-old man is brought to the emergency room after sustaining burns during a fire in his apartment. He has blistering and erythema of his face, left upper extremity, and chest with frank charring of his right upper extremity. He is agitated, hypotensive, and tachycardiac. Which one of the following statements concerning this patient's initial wound management is correct?

- a. Topical antibiotics should not be used, as they will encourage growth of resistant organisms
- b. Early excision of facial and hand burns is especially important
- c. Escharotomy should only be performed if neurologic impairment is imminent
- d. Excision of areas of third-degree or of deep second-degree burns usually takes place 3–7 days after injury
- e. Split-thickness skin grafts over the eschar of third-degree burns should be performed immediately in order to prevent fluid loss

21.

Central venous pressure (CVP) may be decreased by

- a. Pulmonary embolism
- b. Hypervolemia
- c. Positive-pressure ventilation
- d. Pneumothorax
- e. Gram-negative sepsis

22.

When operating to repair civilian colon injuries

- a. A colostomy should be performed for colonic injury in the presence of gross fecal contamination
- b. The presence of shock on admission or more than two associated intraabdominal injuries is an absolute contraindication to primary colonic repair
- c. Distal sigmoidal injuries should not be repaired primarily
- d. Right-sided colonic wounds should not be repaired primarily
- e. Administration of intravenous antibiotics with aerobic and anaerobic coverage has not been shown to decrease the incidence of wound infections after repair of colonic injuries

23.

Which one of the following statements regarding the above burn patient is correct?

- a. High-dose penicillin should be administered prophylactically

- b. Tetanus prophylaxis is not necessary if the patient has been immunized in the previous 3 years
- c. This burn can be estimated at 60% total body surface area using the “rule of nines”
- d. The most sensitive indicator of adequacy of fluid resuscitation is heart rate
- e. This patient should undergo immediate intubation for airway protection and oxygen administration

24.

A 34-year-old prostitute with a history of long-term intravenous drug use is admitted with a 48-h history of pain in her left arm. Physical examination is remarkable for crepitus surrounding needle track marks in the antecubital space with a serous exudate. The plain x-ray of the arm is shown below. Which of the following organisms is most likely to be responsible for this condition?

- a. Anaerobic streptococcus
- b. Staphylococcus aureus
- c. Pseudomonas aeruginosa
- d. Clostridium perfringens
- e. Escherichia coli

25.

True statements regarding squamous cell carcinoma of the lip include

- a. The lesion often arises in areas of persistent hyperkeratosis
- b. More than 90% of cases occur on the upper lip
- c. The lesion constitutes 30% of all cancers of the oral cavity
- d. Radiotherapy is considered inappropriate treatment for these lesions
- e. Initially metastases are to the ipsilateral posterior cervical lymph nodes

26.

A 36-year-old man sustains a gunshot wound to the left buttock. He is hemodynamically stable. There is no exit wound, and an xray of the abdomen shows the bullet to be located in the right lower quadrant. Correct management of a suspected rectal injury would include

- a. Barium studies of the colon and rectum
- b. Barium studies of the bullet track
- c. Endoscopy of the bullet track
- d. Angiography
- e. Sigmoidoscopy in the emergency room

27.

Which of the following statements regarding carpal tunnel syndrome is correct?

- a. It is rarely secondary to trauma
- b. It may be associated with pregnancy
- c. It most often causes dysesthesia during waking hours
- d. It is often associated with vascular compromise
- e. Surgical treatment involves release of the extensor retinaculum

28.

The response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion
- b. Increase in renal perfusion
- c. Decrease in cortisol levels
- d. Hyperkalemia
- e. Hypoglycemia

29.

The angiogram depicted below is most typical of the patient whose history includes

- a. Cigarette smoking
- b. Alcoholism
- c. Hypertension
- d. Diabetes
- e. Type I hyperlipoproteinemia

30.

Which of the following is true with regard to wound contraction?

- a. It is the primary process affecting closure of a sutured or stapled surgical wound
- b. Bacterial colonization significantly slows the process of contraction
- c. It may account for a maximum of 50% decrease in the size of a wound
- d. It is based on specialized fibroblasts that contain actin myofilaments
- e. The percentage reduction of wound size is increased with increased adherency of skin to underlying tissue

V-10

1.

A 45-year-old woman is explored for a perforated duodenal ulcer 6 h after onset of symptoms. She has a history of chronic peptic ulcer disease treated medically with minimal symptoms.

Six weeks after surgery, the patient returns complaining of postprandial weakness, sweating, light-headedness, crampy abdominal pain, and diarrhea. The best management would be

- a. Antispasmodic medications (e.g., Lomotil)
- *b. Dietary advice and counseling that symptoms will probably abate within 3 mo of surgery
- c. Dietary advice and counseling that symptoms will probably not abate but are not dangerous
- d. Workup for neuroendocrine tumor (e.g., carcinoid)
- e. Preparation for revision to Rouxen-Y gastrojejunostomy

2.

Proper treatment for frostbite consists of

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40–44 °C
- e. Rewarming of the affected part at room temperature

3.

A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood.

After initial resuscitation, this man should undergo

- a. Esophageal balloon tamponade
- b. Barium swallow
- c. Selective angiography
- d. Esophagogastrosctopy
- e. Exploratory celiotomy

4.

Signs and symptoms associated with early sepsis include

- a. Respiratory acidosis
- b. Decreased cardiac output
- c. Hypoglycemia

- d. Increased arteriovenous oxygen difference
- e. Cutaneous vasodilation

5.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Which of the following statements is true about this patient?

- a. The inflammatory process is likely to be confined to the mucosa and submucosa
- b. The inflammatory reaction is likely to be continuous
- c. Superficial as opposed to linear ulcerations can be expected
- d. Noncaseating granulomata can be expected in up to 50% of patients with similar disease
- e. Microabscesses within crypts are common

6.

Dopamine is a frequently used drug in critically ill patients because

- a. At high doses it increases splanchnic flow
- b. At high doses it increases coronary flow
- c. At low doses it decreases heart rate
- d. At low doses it lowers peripheral resistance
- e. It inhibits catecholamine release

7.

A 45-year-old woman undergoes an uneventful laparoscopic cholecystectomy for which she receives one dose of cephalosporin. One week later, she returns to the emergency room with fever, nausea, and copious diarrhea and is subsequently diagnosed with pseudomembranous colitis. With respect to this disease, which one of the following statements is correct?

- a. Surgical intervention is frequently required
- b. After appropriate antibiotic therapy, the relapse rate is less than 5%
- c. Tissue culture assay for *Clostridium difficile* toxin B is neither sensitive nor specific; therefore diagnosis should be based on clinical findings
- d. If surgery is performed, a left hemicolectomy is usually adequate to treat pseudo-membranous colitis
- e. Indications for surgical treatment include intractable disease, failure of medical therapy, toxic megacolon, and colonic perforation

8.

The etiologic factor implicated in the development of pulmonary insufficiency following major nonthoracic trauma is

- a. Aspiration
- b. Atelectasis
- c. Fat embolism syndrome
- d. Fluid overload
- e. Pneumonia

9.

A 30-year-old female patient who presents with bleeding per rectum is found at colonoscopy to have colitis confined to the transverse and descending colon. A biopsy is performed. Regarding potential complications in this patient, which of the following statements is true?

- a. The occurrence of toxic megacolon is common
- b. Perforation occurs in about 25% of patients with similar disease
- c. Fistulas between the colon and segments of intestine, bladder, vagina, urethra, and skin may develop
- d. Extraintestinal manifestations including uveitis and erythema nodosum would be exceedingly rare in this patient
- e. This patient would be at no increased risk for the development of cancer of the colon as compared with an age-matched population

10.

A 60-year-old male alcoholic is admitted to the hospital with hematemesis. His blood pressure is 100/60 mm Hg, the physical examination reveals splenomegaly and ascites, and the initial hematocrit is 25%. Nasogastric suction yields 300 mL of fresh blood. A diagnosis of bleeding esophageal varices is made in this patient. Appropriate initial therapy would be

- a. Intravenous vasopressin
- b. Endoscopic sclerotherapy
- c. Emergency portacaval shunt
- d. Emergency esophageal transection
- e. Esophageal balloon tamponade

11.

A 31-year-old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or hemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation, and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags
- c. Stabilization with towel clips
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

12.

A previously healthy 9-year-old child comes to the emergency room because of fulminant upper gastrointestinal bleeding. The hemorrhage is most likely to be the result of

- a. Esophageal varices
- b. Mallory-Weiss syndrome
- c. Gastritis
- d. A gastric ulcer
- e. A duodenal ulcer

13.

Correct statements concerning antiplatelet therapy include

- a. Aspirin has been shown to be an effective antiplatelet agent
- b. Most antiplatelet agents work by enhancing prostaglandin synthesis
- c. Antiplatelet agents have not been shown to increase patency rates of coronary artery bypass grafts
- d. Aspirin can be used to treat deep venous thrombophlebitis
- e. The antiplatelet effect of aspirin will last for the life of the platelet, which is generally 20–25 days

14.

A 23-year-old previously healthy man presents to the emergency room after sustaining a single gunshot wound to the left chest. The entrance wound is 3 cm inferior to the nipple and the exit wound is just below the scapula. A chest tube is placed that drains 400 mL of blood and continues to drain 50–75 mL/h during the initial resuscitation. Initial blood pressure of 70/0 mm Hg responds to 2 L crystalloid and is now 100/70 mm Hg. Abdominal examination is unremarkable. Chest x-ray reveals a reexpanded lung and no free air under the diaphragm. The next management step should be

- a. Admission and observation
- b. Peritoneal lavage
- c. Exploratory thoracotomy
- d. Exploratory celiotomy
- e. Local wound exploration

15.

In planning the management of a 2.8-cm epidermoid carcinoma of the anus, the first therapeutic approach should be

- a. Abdominoperineal resection
- b. Wide local resection with bilateralinguinal node dissection
- c. Local radiation therapy
- d. Systemic chemotherapy
- e. Combined radiation therapy and chemotherapy

16.

Ligation of injured major peripheral veins is rarely preferable to repair, but may be justified for which reason?

- a. In severe popliteal vascular injuries, venous ligation leads to a decreased amputation rate following successful arterial reconstruction when compared with combined arterial and venous repair
- b. Venous ligation leads to a decreased incidence of chronic venous insufficiency when compared with venous repair
- c. Venous ligation leads to a decreased operative time in patients with multiple injuries or severe trauma when compared with venous repair
- d. In the presence of extensive associated soft tissue injury, venous return is already sufficiently impaired to render venous repair pointless
- e. Even though ligated veins thrombose, they often recanalize

17.

With regard to wound healing, which one of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 wk after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 24–36 h after the injury
- d. The function of the monocyte in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

18.

An upper GI series is performed on a 71-year-old woman who presented with several months of chest pain that occurred when she was eating. The film below is obtained. Investigation reveals a microcytic anemia and erosive gastritis on upper endoscopy. Which of the following statements about the patient's condition is true?

- a. It is congenital
- b. The gastroesophageal junction is above the diaphragm
- c. Ulceration, gastritis, and anemia are common

- d. It usually is controlled by medical therapy
- e. Surgical treatment, if indicated, should be delayed up to 3 mo to allow inflammation around the gastroesophageal junction to subside

19.

Symptoms or signs of atherosclerotic occlusive disease of the bifurcation of the abdominal aorta (Leriche syndrome) include

- a. Claudication of the buttock and thigh
- b. Causalgia of the lower leg
- c. Retrograde ejaculation
- d. Gangrene of the feet
- e. Dependent rubor of the feet

20.

Treatment for clostridial myonecrosis (gas gangrene) includes which of the following measures?

- a. Administration of an antifungal agent
- b. Administration of antitoxin
- c. Wide debridement
- d. Administration of hyperbaric oxygen
- e. Early closure of tissue defects

21.

Dieulafoy's lesion of the stomach is characterized by

- a. A large mucosal defect with underlying, friable vascular plexus
- b. Frequent rebleeding after endoscopic treatment
- c. Massive bleeding that requires subtotal gastrectomy
- d. Location in the proximal stomach
- e. Acid-peptic changes of the gastric mucosa

22.

Management of leukoplakia of the oral cavity includes

- a. Excisional biopsy of all lesions
- b. Application of topical antibiotics
- c. Low-dose radiation therapy
- d. Ascertaining that dentures fit properly
- e. Application of topical chemotherapeutic agents

23.

Signs and symptoms of hemolytic transfusion reactions include

- a. Hypothermia
- b. Hypertension
- c. Polyuria

- d. Abnormal bleeding
- e. Hypesthesia at the transfusion site

24.

Correct statements regarding rectal carcinoid tumors include

- a. Endoscopic resection is sufficient for tumors smaller than 2 cm
- b. Patients frequently present with the carcinoid syndrome
- c. They are rapidly growing tumors
- d. Local recurrence is rare with complete resection of the primary lesion
- e. They can develop the carcinoid syndrome even in the absence of liver metastases

25.

Which of the following situations would be an indication for performance of a thoracotomy in the emergency room?

- a. Massive hemothorax following blunt trauma to the chest
- b. Blunt trauma to multiple organ systems with obtainable vital signs in the field but none on arrival in the emergency room
- c. Rapidly deteriorating patient with cardiac tamponade from penetrating thoracic trauma
- d. Penetrating thoracic trauma and no signs of life in the field
- e. Penetrating abdominal trauma and no signs of life in the field

26.

A patient suspected of having a hemolytic transfusion reaction should be managed with

- a. Removal of nonessential foreign body irritants, e.g., Foley catheter
- b. Fluid restriction
- c. 0.1 M HC1 infusion
- d. Steroids
- e. Fluids and mannitol

27.

A 72-year-old patient with an intractable type I ulcer along the incisura with a significant amount of scarring along the entire length of the lesser curvature. Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

28.

A 40-year-old woman undergoes wide excision of a pigmented lesion of her thigh. Pathologic examination reveals malignant melanoma that is Clark's level IV. Findings on examination of the groin are normal. The patient should be advised that

- a. Radiotherapy will be an important part of subsequent therapy
- b. The likelihood of groin node metastases is remote
- c. Immunotherapy is an effective form of adjunctive treatment for metastatic malignant melanoma
- d. Groin dissection is not indicated unless and until groin nodes become palpable
- e. Intravesical bacille Calmette- Guйrin (BCG) administration has been found to aid in local control in the majority of patients

29.

A 90-year-old patient with a bleeding duodenal ulcer. Select the appropriate surgical procedure

- a. Vagotomy and antrectomy
- b. Antrectomy alone
- c. Vagotomy and pyloroplasty
- d. Vagotomy and gastrojejunostomy
- e. Proximal gastric vagotomy

30.

An 18-year-old high school football player is kicked in the left flank. Three hours later he develops hematuria. His vital signs are stable. Initial diagnostic tests in the emergency room should include which of the following?

- a. Retrograde urethrography
- b. Retrograde cystography
- c. Arteriography
- d. Intravenous pyelogram
- e. Diagnostic peritoneal lavage

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