

# Surgery 6<sup>th</sup> year final archive

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1. Which of the following is not a treatment for liver metastases?
  - a. Open resection
  - b. Portal venous chemoembolization
  - c. Ablation
  - d. Laparoscopic resection
  - e. Arterial chemoembolization
  
2. A 45-year-old female on oral contraceptive pills with a 5 cm hepatic adenoma. What is the most appropriate next step?
  - a. Ultrasound
  - b. Resection
  - c. Biopsy
  - d. Stop OCPs and US after 6 months
  
3. All of the following are risk factors for HCC except?
  - a. Chronic HBV
  - b. Alcoholic cirrhosis
  - c. Focal nodular hyperplasia
  - d. Hepatic adenoma
  - e. Hemochromatosis
  
4. All of the following cells are part of the reticuloendothelial system of the liver except?
  - a. Kuffper cell
  - b. Ito cell
  - c. Endothelial
  - d. Hepatocyte
  
5. A patient with liver cirrhosis due to chronic hepatitis C virus infection, what would be the best screening regimen for HCC for him?
  - a. Abdominal CT every year
  - b. AFP
  - c. Biopsy

6. In a patient with cyclic breast pain, what point in history is the most important to assess the etiology?
  - a. Nipple discharge
  - b. The relationship between the pain and her menstrual cycle
7. Fibrocystic changes of the breast are characterized by?
  - a. Single lump
  - b. Painful, tender, rubbery nodules
8. What is the most important risk factor in breast cancer?
  - a. Being Female
  - b. Age
  - c. Genetic status
9. One of the following is a red flag (alarming) finding in the physical examination of the breast?
  - a. Tender rubbery nodules
  - b. Fixed lesion to the skin and chest wall
  - c. Milky discharge
10. What is the role of estrogen in breast development?
  - a. Lobuloalveolar development
  - b. Proliferation
  - c. Differentiation
11. What is the advantage of core needle biopsy over fine needle aspiration?
  - a. Does not require local analgesia
  - b. Non-invasive
  - c. Provide information about the tumor grade
  - d. Fewer false-negative results
12. Which of the following is true about retrocecal Appendicitis?
  - a. Rigidity is present
  - b. Deep palpation of the right iliac fossa may fail to elicit tenderness
  - c. Deep tenderness is often absent in the loin
  - d. There is psoas muscle spasm leading to extension of the hip
13. Which of the following is present in the Appendicitis Inflammatory Response (AIR) score but not in the Alvarado score?
  - a. Fever
  - b. Leukocytosis
  - c. CRP

- 14. During digital rectal examination for a patient with appendicitis, there is tenderness in the rectovesical pouch, where is the appendix most likely to be located?**
- Retrocecal
  - Pelvic**
- 15. Hungry Bone Syndrome is a complication after parathyroidectomy. What is the most appropriate management?**
- Calcitonin
  - Bisphosphonates
  - IV Calcium and Vitamin D**
- 16. One of the following is found in Tumor lysis syndrome?**
- Hypocalcemia**
  - Hypoglycemia
  - Hypokalemia
  - Hypouricemia
- 17. Salivary stones in which gland are often radiolucent?**
- Submandibular
  - Sublingual
  - Parotid**
- 18. Which of the following diagnostic procedures is contraindicated in a salivary gland tumor?**
- FNA
  - Open biopsy**
- 19. A 58-year-old male presents with a malignant mass located 11 cm from the anal verge on colonoscopy. Biopsy confirms adenocarcinoma. Which surgical procedure is the most appropriate management for this patient?**
- Abdominoperineal resection
  - Anterior resection**
  - Left hemicolectomy
  - Total Colectomy
  - Total proctocolectomy

**20. A male patient with Crohn's disease presents with painful recurrent fistula-in-ano, which is unresponsive to medical treatment. What is the best management for this case?**

- a. **Seton placement**
- b. Simple excision
- c. Fistulotomy
- d. Right hemicolectomy

**21. A 75-year-old male presents with history of recurrent painless fresh bleeding per rectum and protrusion from anus that reduces spontaneously after defecation, on inspection, there are no visible external hemorrhoids, what is your next step in management?**

- a. Laser
- b. **Perform a digital rectal examination and confirm the diagnosis**
- c. Band ligation
- d. Open hemorrhoidectomy
- e. Conservative management with sitz bath, etc..

**22. A 55-year-old man presents to the clinic with a long-standing anal fissure with pain on defecation and red streaking after bowel movements. He has failed conservative measures. On anoscopy, you note a small posterior midline fissure with surrounding fibrosis, a skin tag, and a hypertrophied papilla. You plan a lateral internal sphincterotomy. In performing this procedure, you will divide a continuation of which muscle?**

- a. Puborectalis muscle
- b. **Muscularis propria of the rectum**
- c. Levator ani muscle
- d. Conjoined longitudinal muscle
- e. Subcutaneous external anal sphincter muscle

**23. What is the best position for performing a digital rectal examination?**

- a. Modified lithotomy
- b. Standing
- c. **Lying laterally**
- d. Knee-chest position

**24. Which of the following polyps has the highest malignant potential?**

- a. 1.5 cm tubular polyp
- b. 2 cm hyperplastic polyp
- c. 3 cm inflammatory polyp
- d. **1.5 cm villous polyp**

- 25. A patient with diverticulosis presents with lower GI bleeding, the colonoscopy was inconclusive in determining the source of bleeding. Which of the following would be best in assessing the source?**
- Repeat colonoscopy
  - Immediate laparotomy
  - Conventional angiography**
- 26. A 50-year-old male with diverticular disease presents with an acute presentation of abdominal pain and fever, imaging reveals infected diverticula and an abscess in the lower abdomen. What is the best next step?**
- IV antibiotics and percutaneous drainage**
  - Colonic resection
- 27. Which of the following markers is used in the follow-up of colorectal cancer?**
- CA 19-9
  - CA125
  - AFP
  - CEA**
- 28. Which of the following is incorrect regarding Familial adenomatous polyposis?**
- Prophylactic colectomy at 20 years of age
  - Autosomal dominant mutation on chromosome 5
  - Has hundreds of polyps
  - 80% lifetime risk of colorectal malignancy**
- 29. Which of the following is not a finding on barium enema for ulcerative colitis?**
- Loss of haustra
  - Granular mucosa
  - Saw-tooth appearance**
  - Pseudopolyps
  - Shortening of the colon
- 30. What is the most common extraintestinal manifestation of ulcerative colitis?**
- Pyoderma gangrenosum
  - Primary sclerosing cholangitis
  - Erythema nodosum
  - Arthritis**
  - Iritis

**31. The most common presentation of chronic pancreatitis?**

- a. Recurrent epigastric pain
- b. Anorexia**
- c. Steatorrhea

**32. The most specific symptom associated with pancreatic adenocarcinoma is?**

- a. Weight loss
- b. Epigastric pain
- c. Painless jaundice**
- d. Right upper quadrant pain, jaundice, and fever
- e. Back pain relieved by leaning forward

**33. Which of the following is not used in predicting mortality in cases of pancreatitis?**

- a. Creatinine**
- b. Blood urea nitrogen
- c. Hematocrit
- d. Calcium
- e. AST

**34. A 45-year-old female came to the ER with severe epigastric pain that is relieved with leaning forward. She has stable vital signs. The investigation revealed an amylase level of 3000 and a Lipase level of 3500. What is the most appropriate next step?**

- a. IV Antibiotics
- b. IV fluids and Ultrasound**

**35. What is the most important factor determining the mode of treatment in pancreatic trauma?**

- a. Involvement of the main pancreatic duct**

**36. In regard to the vascular anatomy of the adrenal gland, which of the following statements is incorrect?**

- a. The superior arterial supply arises from branches of the inferior phrenic artery.
- b. The left adrenal vein, joined by the inferior phrenic vein, drains into the left renal vein.
- c. The right adrenal vein enters directly into the inferior vena cava (IVC).
- d. The inferior arterial supply arises from branches originating from the aorta.**
- e. The adrenal vein is longer on the left side.

- 37. A 52-year-old woman is hospitalized with acute upper gastrointestinal bleeding. Endoscopic examination reveals a 2.5 cm ulcer in the area of incisura angularis of the stomach. Endoscopic management fails to control the bleeding. What is the optimal operative treatment for this patient?**
- Distal gastrectomy including the area of ulceration
  - Gastric bypass surgery
  - Gastrotomy with oversewing of the bleeding site
  - Proximal gastric vagotomy and oversewing of the bleeding ulcer
  - Truncal vagotomy, pyloroplasty, and oversewing of the bleeding ulcer
- 38. Carcinoid syndrome is best diagnosed by the detection of which metabolite in the urine?**
- 5-Hydroxytryptamine
  - Serotonin
  - VMA
  - 5-hydroxyindoacetate
- 39. One of the following is a radiological feature of splenic rupture?**
- Obliteration of the psoas shadow
  - Obliteration of the gastric outline
  - Depression of the left side of the diaphragm
- 40. An elderly man who has a history of H. pylori infection and atrophic gastritis presents with early satiety and weight loss. Endoscopy shows ulceration in the distal stomach. What is the most likely type of cancer?**
- Diffuse-type gastric adenocarcinoma
  - Intestinal-type gastric adenocarcinoma
  - Lymphoma
- 41. Which of the following is incorrect about gastric cancer?**
- Endoluminal ultrasound can detect extra-regional nodal metastasis
- 42. A 32-year-old male presented to the emergency department 5 days after laparoscopic sleeve gastrectomy. He has been feeling unwell since the surgery, he is complaining of epigastric pain, nausea, fevers, chills, and intolerance to oral intake. What is the most helpful investigation to be done in the emergency room?**
- Barium swallow
  - CT scan
  - Abdominal ultrasound
  - MRCP

- 43.. Which of the following clinical conditions is not associated with delayed gastric emptying?**
- Hypocalcemia
  - Scleroderma
  - Hyperglycemia
  - Myxedema.
  - Zollinger-Ellison syndrome**
- 44. A patient presents after Roux-en-Y procedure with tachycardia (HR=110) and RR=22, and after a few hours, tachycardia increased, and the heart rate became 120. What is the most likely cause of what he is experiencing?**
- Pulmonary embolism
  - Anastomotic leak**
- 45. An elderly man presents after a gastrectomy procedure for gastric cancer, complaining of nausea and vomiting 30 minutes after each meal, and he becomes diaphoretic. What best explains his symptoms?**
- Hypoglycemia
  - Fluids shifting from the intravascular space due to the osmotic effect**
- 46. A patient with a previous history of ischemic bowel requiring extensive bowel resection, now with only 100 cm of bowel remaining and dependent on total parenteral nutrition (TPN), presents to your office complaining of hair loss, rash on the extremities, and dry skin. Which nutrient deficiency is this patient most likely suffering from?**
- Copper
  - Selenium
  - Vitamin D
  - Essential fatty acids**
  - Zinc
- 47. Which of the following fistulas is most likely to spontaneously close?**
- Presence of distal obstruction
  - Presence of radiation history
  - Presence of active inflammatory disease
  - Presence of a long tract of fistula**
  - Presence of neoplasm

- 48. Which of the following is the main component of pigmented stone?**
- Cholesterol
  - Calcium bilirubinate**
  - Calcium carbonate
  - Calcium phosphate
  - Calcium oxalate
- 49. The cystic artery is a branch of which artery?**
- Right hepatic artery**
  - Common hepatic artery
  - Left hepatic artery
- 50. A 70-year-old male presents with right upper quadrant pain, fever, chills, and jaundice. What is the best management plan?**
- IV antibiotics and a plan for cholecystectomy
  - ERCP and sphincterotomy
  - ERCP, sphincterotomy, and stone extraction, and consider cholecystectomy later on**
- 51. A 33-year-old woman is scheduled for elective cholecystectomy. Preoperative evaluation shows the presence of moderate hypothyroidism. Select the next most appropriate action:**
- Proceed with surgery with the knowledge that minor perioperative complications could develop.
  - Postpone surgery until a euthyroid state is achieved.**
  - Proceed with surgery while beginning treatment with levothyroxine.
  - Proceed with surgery while beginning treatment with thioamides.
  - Proceed with surgery if severe clinical symptoms are not present.
- 52. Which of the following is incorrect regarding gallstone ileus?**
- A plain abdominal radiograph may be helpful
  - Radiological findings show air in the bile tree and intestinal obstruction
  - The underlying cause is the formation of a fistula between the gallbladder and the ileum**
  - Abdominal ultrasound may show the stone obstructing the ileum
- 53. All of the following are intramural causes of obstructive jaundice except?**
- Choledochal cyst
  - Biliary atresia
  - Head of the pancreas tumor**
  - Inflammatory stricture

- 54. Mirizzi syndrome is best described as?**
- A stone in the cystic duct obstructing the common hepatic duct
- 55. Which of the following is the most common complication of hydatid liver disease?**
- Perforation
  - Hemorrhage
  - Obstructive jaundice due to rupture of the cyst content in the biliary tree
- 56. Which of the following is correct about a hernia?**
- Direct inguinal hernia is medial to the inferior epigastric artery
  - Femoral hernia is more common in males
  - Femoral hernia is not likely to be incarcerated
- 57. In which type of hernia is the antimesenteric border of the bowel strangulated in the hernial sac without obstruction of the lumen**
- Spigelian hernia
  - Sliding hernia
  - Pantaloon hernia
  - Richter hernia
- 58. Which of the following is the most common cause of esophageal rupture?**
- Pneumatic dilation
  - Flexible esophagoscope
- 59. Which of the of the following is not characteristic of achalasia?**
- Bird beak sign
  - Due to myenteric plexus degeneration
  - Occurs in elderly women
  - Intermittent dysphagia
- 60. An elderly female patient presents with dysphagia, barium swallow shows the bird beak sign. What is the underlying mechanism of her disease?**
- Failure of the lower esophageal sphincter to relax
- 61. All of the following are complications of GERD except?**
- Pulmonary complication
  - Upper GI bleeding
  - Dysplasia of the lower esophagus
  - Esophageal stricture in the middle third of the esophagus

**62. A case of a patient with suspected esophageal cancer. Which of the following is the best method to look for distant metastasis?**

- a. CT chest
- b. Endoscope
- c. Ultrasound
- d. CT chest, abdomen, and pelvis with oral and IV contrast

**63. Case of a patient with dysphagia, diagnosed with Zenker diverticulum. What is the appropriate management of Zenker diverticulum?**

- a. Diverticulectomy
- b. Endoscopic linear stapler

**64. Which of the following is not a complication of hepaticojejunostomy?**

- a. Cholangitis
- b. Malignant transformation
- c. Pancreatitis
- d. Lithiasis

**65. Which of the following is one of the correct steps in NG tube insertion?**

- a. The tube is inserted through the nose in the direction of the forehead
- b. The tube is inserted vertically through the nose
- c. You ask the patient to cough to facilitate the entry of the tube
- d. You ask the patient to swallow to facilitate the entry of the tube

**66. Which of the following is not a characteristic of carbon dioxide (CO<sub>2</sub>) as an insufflation gas?**

- a. Rapidly absorbed
- b. Relatively inexpensive
- c. Negligible physiologic consequences
- d. Low risk of gas embolism
- e. Readily available

**67. Select the most appropriate site for initial trocar placement in a patient undergoing laparoscopic Nissen fundoplication with a previous midline scar from the xiphoid to the pubis:**

- a. Umbilical
- b. Suprapubic
- c. Left upper quadrant
- d. Left lower quadrant
- e. Right upper quadrant

**68. A patient had a surgery for an abscess on his back, the wound was left open and packed. With time, the wound got progressively smaller and healed. What is the name of this method of wound closure?**

- a. Primary intention
- b. Secondary intention**
- c. Tertiary intention
- d. Delayed primary closure
- e. Delayed secondary closure

**69. What is the maximum tensile strength of the wound in comparison to the normal skin?**

- a. 60%
- b. 80%**

**70. A 34-year-old man sustained a gunshot wound to his abdomen that necessitated exploratory laparotomy and small bowel resection. Two weeks after the initial operation, he was reexplored for a large intraabdominal abscess. Which of the following will result in the most rapid gain in strength of the new incision?**

- a. A separate transverse incision is made.
- b. The midline scar is excised with a 1-cm margin.
- c. The midline incision is reopened without excision of the scar.**
- d. The midline incision is left to heal by secondary intention.
- e. The rate of gain in strength is not affected by the incision technique.

**71. All of the following explain why steroids delay wound healing except?**

- a. Decreased Angiogenesis
- b. Impaired Epithelialization
- c. Prevent the formation of a platelet plug**

**72. Marjolin ulcer is associated with which of the following?**

- a. Squamous cell carcinoma**
- b. Basal cell carcinoma

**73. Which of the following is incorrect regarding melanoma?**

- a. Superficial Spreading is the most common type
- b. The nodular variant is the most aggressive
- c. Mostly metastasizes to the lung
- d. The size of the tumor is more indicative of prognosis than depth**

- 74. All of the following are indications for admission to the burn unit except?**
- Electrical injury
  - Inhalational injury
  - Second-degree burn covering 10% of TBSA
  - First-degree burn covering 15% of TBSA**
- 75. Which of the following is incorrect regarding burns?**
- Acidic burns are deeper than alkali burns**
  - Only second and third-degree burns are taken into account for the Parkland formula
  - Electrical burn needs to be monitored due to the risk of arrhythmia
- 76. The thyroid gland embryologically originates from?**
- 2<sup>nd</sup> pharyngeal pouch
  - 4<sup>th</sup> pharyngeal pouch**
- 77. The thyroid cancer with the highest propensity to spread hematogenously?**
- Papillary
  - Follicular**
  - Medullary
  - Anaplastic
- 78. If a patient was diagnosed with medullary thyroid CA associated with the RET proto-oncogene mutation. What is the best next step?**
- Calcitonin only
  - PET scan
  - Serum calcium and PTH level
  - Genetic testing for family members**
- 79. Which of the following is a suspicious feature for a thyroid nodule?**
- Painless, rapidly growing nodule**
  - Nodule associated with Hashimoto thyroiditis
- 80. 6 hours after thyroidectomy, a patient developed difficulty in breathing and a neck hematoma. What is the most appropriate next step?**
- Reopen wound**
  - Apply good pressure on the wound dressing
- 81. The most common vessel to be injured in penetrating neck trauma is?**
- Internal carotid artery
  - Common carotid artery**
  - External jugular vein

- 82. A patient was in a road traffic accident, he momentarily lost consciousness. Head CT reveals a biconvex hematoma. What is the most likely source of bleeding in this case?**
- Bridging veins
  - Middle meningeal vessels**
- 83. Which of the following is most commonly diagnosed with FAST in chest trauma**
- Pneumothorax
  - Hemothorax
  - Pericardial tamponade**
- 84. Which of the following is an indication for non-surgical management in liver injury?**
- Extravasation of contrast
  - Hemoperitoneum in a hemodynamically stable patient**
- 85. Which of the following best describes the role of damage control surgery in trauma?**
- Definitive treatment of all injuries
  - Prevent the triad of death**
- 86. Transfusion of a unit of PRBCs into a hemodynamically stable patient with hemoglobin 7.5 g/dL does which of the following?**
- Increases systemic oxygen delivery (DO<sub>2</sub>)**
  - Increases tissue extraction of oxygen
  - Increases systemic oxygen uptake (VO<sub>2</sub>)
  - Increases arterial O<sub>2</sub> saturation (Sao<sub>2</sub>)
  - Decreases venous O<sub>2</sub> saturation (Svo<sub>2</sub>)
- 87. A 22-year-old man involved in a motor vehicle accident is found to have a thoracic spine fracture (T6) and paraplegia. The patient is hypotensive with a systolic BP of 70 mmHg, is bradycardic with a pulse of 48 beats/min, and is breathing comfortably. Which of the following would be the most appropriate initial treatment?**
- Isotonic fluid administration**
  - Steroid administration within 24 h of the injury
  - Immediate intubation
  - α-Agonist administration
  - Immediate magnetic resonance imaging

- 88. Which of the following is incorrect regarding Hirschsprung disease?**
- There is a transitional zone on the barium enema
  - There is decreased immunochemical staining of acetylcholinesterase**
- 89. In esophageal atresia with fistula, which of the following is incorrect?**
- You need to suction the oral secretions
  - Imaging reveals air in the intestine
  - Gastrostomy is needed**
  - Abdominal distention
- 90. Which of the following is not a complication of circumcision?**
- Paraphimosis
  - Balanitis**
  - Degloving of the penile skin
  - Meatal stenosis
  - Buried penis
- 91. Which of the following is incorrect regarding the management of strangulated hernia in children?**
- Manual reduction by sedation and TAXIS**
  - Reduction should not be attempted before surgery
  - Can be confused with testicular torsion
- 92. Which of the following is not a cause of massive rectal bleeding in children?**
- Juvenile polyps
  - Peutz-Jeghers syndrome
  - Gastric ulcer in Meckel diverticulum
  - Stress ulcer in the duodenum in a patient with burns**
- 93. According to thrombophlebitis, one of the following is false.**
- Involves superficial veins
  - Occur in patients with recurrent transfusion
  - On physical examination, there is redness, tenderness, and a palpable cord
  - Migratory thrombophlebitis is indicative of an underlying malignancy
  - Pulmonary embolism is a consequence of this condition**
- 94. Which of the following is false about critical ischemia of the lower limb?**
- Rest pain
  - Ankle brachial index more than 0.7**
  - Ankle pressure is more than 50
  - Ulcer
  - Gangrene

**95. Most common site of arterial embolism?**

- a. Femoral artery bifurcation
- b. Aortic bifurcation
- c. Carotid artery bifurcation

**96. An ulcer on the head of the first metatarsal bone is most likely due to?**

- a. Venous problem
- b. Arterial problem
- c. Neuropathy

**97. Long case of a patient with limb ischemia symptoms, but most importantly, he presents with cold feet and no pulse in the foot. What is the best investigation for this case?**

- a. Duplex ultrasound
- b. MRA
- c. CT angiography

**98. A male underwent surgery for lower limb ischemia, where he had an arterial bypass. The patient suddenly develops lower limb pain, the leg is tense, and there is tenderness on passive flexion of the leg. What is the best management?**

- a. Watch and wait
- b. Fasciotomy
- c. Heparin
- d. Bypass surgery

**99. A female is a known case of atrial fibrillation, she presented with severe abdominal pain that is out of proportion to the physical findings, and she has rectal bleeding. What is the most likely cause of her symptoms?**

- a. Mesenteric ischemia

**100. Which of the following is incorrect regarding Colorectal cancer?**

- a. Mutations like p53 and APC are involved
- b. Low fiber diet and obesity are not risk factors