

Gallbladder and Bile Ducts

1. Which is the investigation that shows both the anatomy and the function of the gallbladder?
 - A. Ultrasonography
 - B. CT scan
 - C. ERCP
 - D. Oral cholecystography
2. The Kasai procedure is performed for which condition?
 - A. Choledochal cyst
 - B. Biliary atresia
 - C. Double gallbladder
 - D. Floating gallbladder
3. Saint's triad consists of
 - A. Gallstones, peptic ulcer and diverticulosis
 - B. Diverticulosis, hiatus hernia, and gallstones
 - C. Gallstones ulcerative colitis and inguinal hernia
 - D. Ulcerative colitis, diverticulosis and hiatus hernia
4. Acute cholecystitis is treated by all the following principles except
 - A. Conservative management only
 - B. Conservative management followed by cholecystectomy after 6 weeks
 - C. Conservative management followed by cholecystectomy within 48 hours
 - D. Conservative management followed by cholecystectomy in the next operative list
5. Which one of the following conditions of the gallbladder is premalignant?
 - A. Strawberry gallbladder
 - B. Cholesterol polyposis of gallbladder
 - C. Adenomatosis and intramural diverticula
 - D. Porcelain gallbladder

- 6. Which is the most important reason for excision of choledochal cyst ?**
- A. Cases recurrent attacks of cholangitis
 - B. Patients have recurrent abdominal pain and mass
 - C. Can lead to malignancy of biliary tree
 - D. Can lead to severe pancreatitis
- 7. All of the following are complications of gallstones except**
- A. Acute cholecystitis
 - B. Pancreatitis
 - C. Peptic ulceration
 - D. Obstructive jaundice
- 8. All of the following parasites can cause infestation in the biliary tract except**
- A. *Echinococcus granulosus* (tape worm)
 - B. *Clonorchis* (fluke)
 - C. *Opisthorchis viverrini* (fluke)
 - D. *Ankylostoma doudenale* (hookworm)
- 9. Prognosis of gallbladder carcinoma is extremely poor because of the following reasons except**
- A. Spreads to the liver very early
 - B. Involves hilar lymphatics and neural plexus
 - C. Adenocarcinoma histologically
 - D. Peritoneal metastasis are common
- 10. Why is early morning sample of urine is yellow in colour because it contains?**
- A. Bilirubinurea
 - B. Haemoglobinurea
 - C. Myoglobinurea
 - D. Urobilinurea
- 11. What is the cause of dark urine in obstructive jaundice?**
- A. Bilirubinurea
 - B. Haemoglobinurea
 - C. Myoglobinurea
 - D. Urobilinurea
- 12. The enzyme secretion from the pancreas is stimulated by what?**
- A. Secretin
 - B. Cholecystokinin
 - C. Gastrin
 - D. Vagus

13. Which is the most informative and practical pancreatic function test?

- A. Secretin stimulation test
- B. Pancreozymin stimulation test
- C. Lundh test
- D. NBT PABA test

14. Raised plasma amylase is seen in all of the following conditions except

- A. Acute pancreatitis
- B. Chronic pancreatitis
- C. Upper gastrointestinal perforation
- D. Retroperitoneal hematoma

15. A child with steatorrhoea, pulmonary insufficiency and salty sweat is most likely suffering from

- A. Chronic pancreatitis
- B. Polycystic disease
- C. Pancreatic carcinoma
- D. Cystic fibrosis

16. What is the treatment of choice for annular pancreas?

- A. Resection of annular pancreas
- B. Duodenoduodenostomy
- C. Gastroduodenostomy
- D. Whipple's operation

17. Which is the diagnostic feature of pancreatic trauma after blunt injury to the abdomen?

- A. Raised serum amylase
- B. Haemorrhagic shock
- C. Abdominal pain
- D. Diabetes mellitus

18. All of the following procedures can cause iatrogenic injury to pancreas except

- A. During splenectomy
- B. During Billroth II gastrectomy
- C. During gastrojejunostomy
- D. Enucleation of islet cell tumor

- 19. All of the following changes are seen in acute pancreatitis except**
- A. Raised serum amylase
 - B. Raised serum lipase
 - C. Hypocalcemia
 - D. Hypoglycemia
- 20. All of the following criteria are used in Ranson scoring system in pancreatitis except**
- A. Serum amylase
 - B. White blood cell count
 - C. Blood sugar
 - D. Age
- 21. All of the following are indications for surgery in acute pancreatitis except**
- A. When diagnosis is in doubt
 - B. Necrosis of pancreas
 - C. Ascites
 - D. Deterioration following conservative management
- 22. Regarding chronic pancreatitis all of the following statements are true except**
- A. High alcohol consumption is an etiological factor
 - B. Pancreatic duct obstruction due to stricture or stone
 - C. Idiopathic
 - D. Not a premalignant condition
- 23. Which is the procedure recommended for treatment of acute pancreatitis?**
- A. Distal pancreatectomy
 - B. Total pancreatectomy
 - C. Pancreaticojejunostomy
 - D. Continuous peritoneal lavage
- 24. The most common clinical feature of chronic pancreatitis is**
- A. Pain
 - B. Diabetes
 - C. Jaundice
 - D. Steatorrhea

25. Painless and progressive jaundice is characteristic of what?

- A. Carcinoma gallbladder
- B. Carcinoma head of pancreas
- C. Carcinoma liver
- D. Gallstone disease

26. What is the surgical treatment for carcinoma head of pancreas?

- A. Total pancreatectomy
- B. Pancreaticoduodenectomy
- C. Cholecystojejunostomy
- D. Gastrojejunostomy

27. Whipple's triad is seen in

- A. Zollinger–Ellison syndrome
- B. Plummer–Vinson syndrome
- C. Insulinoma
- D. Glucagonoma

28. A patient with recurrent peptic ulcer disease should be suspected to have

- A. Zollinger–Ellison syndrome
- B. Plummer–Vinson syndrome
- C. Insulinoma
- D. Glucagonoma

29. The cause for release of bile from the gallbladder is

- A. Secretin
- B. Cholecystokinin
- C. Gastrin
- D. Hydrochloric secretion from gastric glands

30. Ligation of cystic artery to gallbladder leads to

- A. Infarction of gallbladder
- B. Ischemia of gallbladder
- C. Gangrene of gallbladder
- D. Failure of contraction of gallbladder

31. The single lymph node in Calot's triangle is called

- A. Lymph node of Charcot
- B. Lymph node of Clocquet
- C. Lymph node of Lund
- D. Lymph node of Virchow

- 32. Which is the vessel found in the Calot's triangle?**
- A. Left hepatic artery
 - B. Common hepatic artery
 - C. Portal vein
 - D. Cystic artery
- 33. Which is the most dangerous type of anomaly of gallbladder during cholecystectomy?**
- A. Floating gallbladder
 - B. Sessile gallbladder
 - C. Phrygian cap
 - D. Accessory cystic duct
- 34. Which is the common site for double gallbladder?**
- A. Intra-hepatic
 - B. Rutherford–Morison pouch
 - C. Arising from left hepatic duct
 - D. Below normal gallbladder
- 35. Which is the most remote cause for gallstone disease?**
- A. Alteration of cholesterol-bile acid ratio
 - B. Haemolytic anaemias
 - C. Total truncal vagotomy
 - D. Helminthiasis
- 36. Which is the most common type of gallstones?**
- A. Cholesterol stones
 - B. Pigment stones
 - C. Mixed stones
 - D. Oxalate stones
- 37. The complications of gallstones in gallbladder are the following except**
- A. Acute cholecystitis
 - B. Empyema
 - C. Mucocele
 - D. Obstructive jaundice
- 38. The complications of gallstones in the bile duct are the following except**
- A. Obstructive jaundice
 - B. Cholangitis
 - C. Mucocele
 - D. Cholangiocarcinoma

- 39. Regarding Gallstone ileus the following are true except**
- A. Intestinal obstruction caused by gallstones
 - B. Paralytic ileus caused by gallstones
 - C. Associated with cholecysto-duodenal fistula
 - D. Ileum is the common site of obstruction
- 40. Regarding mucocele of the gallbladder the following is true except**
- A. It is due to gallstone blocking cystic duct
 - B. The bile in the gallbladder is absorbed and replaced by mucus
 - C. Gallbladder becomes palpable
 - D. Jaundice is common
- 41. The following is one of the most important differential diagnosis for acute cholecystitis except**
- A. Perforated duodenal ulcer
 - B. Right lower lobe pneumonia
 - C. Acute appendicitis
 - D. Angina pectoris
- 42. The following are various types of Cholecystoses except**
- A. Porcelain gallbladder
 - B. Gallbladder polyps
 - C. Strawberry gallbladder
 - D. Granulomatous cholecystoses
- 43. What is Gas in the gallbladder or in its wall is suggestive of?**
- A. Porcelain gallbladder
 - B. Empyema of gallbladder
 - C. Mucocele of gallbladder
 - D. Cholecysto-enteric fistula
- 44. Which type of Mirizzi syndrome presents with cholecysto-choledochal fistula with complete destruction of common biliary duct wall?**
- A. Type I
 - B. Type II
 - C. Type III
 - D. Type IV
- 45. Caterpillar hump or Moynihan hump involves which artery?**
- A. Cystic artery
 - B. Right hepatic artery
 - C. Left hepatic artery
 - D. Common hepatic artery

- 46. Which is the most common type of Choledochal cyst?**
- A. Saccular dilatation
 - B. Fusiform dilatation
 - C. Intraduodenal dilatation of CBD
 - D. Dilatation of cystic
- 47. Choledochal cyst must be treated surgically for the following reasons except**
- A. Causes recurrent cholangitis
 - B. Predisposes to stone formation
 - C. Predisposes to cholangiocarcinoma
 - D. Can cause obstructive jaundice
- 48. Which is the most common cause of bile duct stricture?**
- A. Cholangitis
 - B. Calculus
 - C. Carcinoma
 - D. Iatrogenic
- 49. Which is the best diagnostic test for choledochal cyst?**
- A. Abdominal CT scan
 - B. Endoscopic ultrasound
 - C. Endoscopic cholangiogram
 - D. MRI cholangiography
- 50. Indications for exploration of CBD are the following except**
- A. Narrow CBD
 - B. History of recurrent jaundice
 - C. Stones palpable in the CBD
 - D. ERCP proved CBD stones
- 51. How is Recurrent and retained gallstones treated?**
- A. Dissolving by orally administered chenodeoxycholic acid
 - B. Cholecystectomy and choledocholithotomy
 - C. Choledocholithotomy and choledochoduodenostomy
 - D. Preoperative endoscopy and basketing, followed by laparoscopic cholecystectomy
- 52. After CBD exploration the CBD is repaired after**
- A. Inserting a drain in the subhepatic pouch
 - B. Draining gallbladder bed
 - C. Insertion of T-tube in the CBD
 - D. Keeping a stent in the CBD

53. Which of the following statements is NOT true regarding gallbladder

- A. The normal capacity of gallbladder is approximately 250 ml
- B. An accessory cholecystohepatic duct may be present
- C. The Phrygian cap is a congenital anomaly
- D. Caroli's disease is intrahepatic saccular dilatation of bile ducts

54. Regarding brown stones, the following are true except

- A. They are formed in bile ducts
- B. They are due to stasis of bile
- C. They could be due to foreign body in CBD like helminthiasis
- D. They are due to excessive haemolysis

55. Acalculus cholecystitis is seen in the following except

- A. Post traumatic patients
- B. Post burns patients
- C. Diabetic patients
- D. Septicaemia patients

56. Which of the following signs are seen in acute cholecystitis?

- A. Rovsing's sign
- B. Cullen's sign
- C. Boas's sign
- D. Grey-Turner's sign

57. Which is the most important risk factor for cholangio-carcinoma.?

- A. Hepatitis C
- B. Primary sclerosing cholangitis
- C. Choledochal cyst
- D. Caroli's disease

58. Which of the following conditions can cause pigment stones in gallbladder?

- A. Hypercholesterolemia
- B. Sickle cell anemia
- C. Hyperparathyroidism
- D. Bantis' syndrome

59. Which of the following signs are seen in acute cholecystitis?

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|------------------|-----------------------|
| A. Cullen's sign | B. Kehr's sign |
| C. Murphy's sign | D. Grey-Turner's sign |

- 60. As per the Courvoisier's law, if the gallbladder is palpable in a jaundiced patient the causes are the following except**
- A. Calculus cholecystitis
 - B. Carcinoma of choledochus
 - C. Stricture of CBD
 - D. Periapillary carcinoma
- 61. When patient feels pain in the right shoulder in acute cholecystitis its called**
- A. Referred pain
 - B. Radiating pain
 - C. Somatic pain
 - D. Psychosomatic pain
- 62. Which is the most sensitive investigation for acute cholecystitis?**
- A. Ultrasound
 - B. CT scan
 - C. HIDA scintigraphy
 - D. IV cholangiography
- 63. What is the preferred mode of treatment of acute cholecystitis?**
- A. Conservative treatment with antibiotics
 - B. Emergency surgery
 - C. Surgery on the next operation list
 - D. Elective surgery after one month
- 64. Which is the most common organism that causes acute cholecystitis?**
- A. Clostridia
 - B. *E. coli*
 - C. *Bacteroids*
 - D. *Salmonella*
- 65. In a case of empyema of gallbladder in which pus is present with friable gallbladder the procedure of choice is**
- A. Cholecystectomy
 - B. Subtotal cholecystectomy
 - C. Cholecystostomy
 - D. Palliative bypass

66. Plain X-ray of abdomen shows gallstones in

- A. 10% of patients
- B. 25% of patients
- C. 50% of patients
- D. 75% of patients

67. Currently the best method to demonstrate the biliary tree is

- A. ERCP
- B. Intravenous cholangiography
- C. Computed tomography
- D. Magnetic resonance cholangiopancreatography

68. A patient has been diagnosed to have cholelithiasis and dilated CBD on ultrasound. Which is the next line of management?

- A. PTC
- B. ERCP
- C. Cholecystectomy
- D. Cholecystostomy

69. Which is the most common site of intestinal obstruction in gallstone ileus?

- A. Duodenum
- B. Jejunum
- C. Ileum
- D. Sigmoid colon

70. Which is the most common benign tumor of gallbladder?

- A. Lipoma
- B. Papilloma
- C. Haemangioma
- D. Adenoma

71. What is Graham–Cole test?

- A. Intravenous cholangiogram
- B. Oral cholecystography
- C. Percutaneous transhepatic cholangiogram
- D. Endoscopic retrograde cholangiopancreatography

72. Which is the best way to detect CBD stones on the operating table?

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|----------------------|-------------------------|
| A. Palpating the CBD | B. T-tube cholangiogram |
| C. Choledochoscopy | D. On table ultrasound |

- 73. Secretions of body fluids where bilirubin is NOT found in jaundice is**
- A. Urine
 - B. CSF
 - C. Joint fluids
 - D. Saliva
- 74. Erythroblastosis foetalis occurs when**
- A. Rh⁺ mother with Rh⁻ father
 - B. Rh⁻ mother with Rh⁺ father
 - C. When both are Rh⁺
 - D. When both are Rh⁻
- 75. "Gallstones are the tomb stones erected in the memory of the organism dead within it." Who made the above statement?**
- A. Robert Koch
 - B. Lord Moynihan
 - C. Theodore Kocher
 - D. Murphy
- 76. Osler's syndrome consists of the following except**
- A. Fever with shivering
 - B. Colic abdominal pain
 - C. Pain radiating to the back
 - D. Jaundice
- 77. A patient with known gallstones has progressive jaundice. Which is the likely position of the stones?**
- A. Gallbladder
 - B. Cystic duct
 - C. Hepatic ducts
 - D. Common bile duct

ANSWERS TO GALLBLADDER AND BILE DUCTS

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|--|-------------------------------------|
| 1. Oral cholecystography | 7. Peptic ulceration |
| 2. Biliary atresia | 8. Ankylostoma doudenale (hookworm) |
| 3. Diverticulosis, hiatus hernia, and gallstones | 9. Adenocarcinoma histologically |
| 4. Conservative management only | 10. Urobilinurea |
| 5. Porcelain gallbladder | 11. Bilirubinurea |
| 6. Can lead to malignancy of biliary tree | 12. Cholecystokinin |
| | 13. NBT PABA test |

14. Chronic pancreatitis
15. Cystic fibrosis
16. Duodenoduodenostomy
17. Raised serum amylase
18. During gastrojejunostomy
19. Hypoglycemia
20. Serum amylase
21. Ascites
22. Not a premalignant condition
23. Continuous peritoneal lavage
24. Pain
25. Carcinoma head of pancreas
26. Pancreaticoduodenectomy
27. Insulinoma
28. Zollinger–Ellison syndrome
29. Cholecystokinin
30. Gangrene of gallbladder
31. Lymph node of Lund
32. Cystic artery
33. Sessile gallbladder
34. Intra-hepatic
35. Total truncal vagotomy
36. Mixed stones
37. Obstructive jaundice
38. Mucocele
39. Paralytic ileus caused by gallstones
40. Jaundice is common
41. Angina pectoris
42. Porcelain gallbladder
43. Empyema of gallbladder
44. Type IV
45. Right hepatic artery
46. Fusiform dilatation
47. Can cause obstructive jaundice
48. Iatrogenic
49. Endoscopic cholangiogram
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51. Preoperative endoscopy and basketing, followed by laparoscopic cholecystectomy
52. Insertion of T-tube in the CBD
53. The normal capacity of gallbladder is approximately 250 ml
54. They are due to excessive haemolysis
55. Diabetic patients
56. Boas's sign
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60. Calculus cholecystitis
61. Referred pain
62. HIDA scintigraphy
63. Surgery on the next operation list
64. *E. coli*
65. Cholecystostomy
66. 10% of patients
67. Magnetic resonance cholangiopancreatography
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69. Ileum
70. Papilloma
71. Oral cholecystography
72. Choledochoscopy
73. Saliva
74. Rh⁻ mother with Rh⁺ father
75. Lord Moynihan
76. Jaundice
77. Common bile duct