



new Ps

Test Bank

246 Qs

* Winked
* Zoubi
* Pama
* Rashidun

Subject:

**Surgery-Gastrointestinal
Rotation**

جراحة

**Collected by:
Batool Albdour**

Small bowel
+ appendix
+ acute abdomen

extra
(shock, sepsis, comphit
+ thermal)

spleen = 6 Qs

gall bladder = 22 Qs

pancreas = 22 Qs

Liver = 24 Qs

esophagus

Stomach

Colon + rectum + anal



1. 70-year-old male patient complaining of rectal bleeding and change in bowel habit, on exam he was found to have a rectal lesion that is suspicious of malignancy, One of the following is CORRECT:

Not for screening

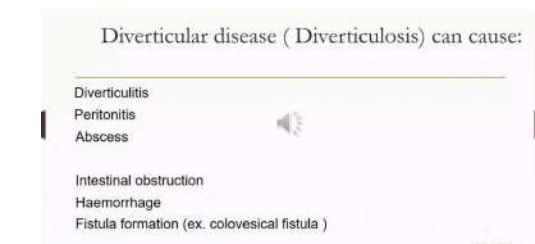
- A. Carcinoembryonic antigen (CEA) level is ordered as a baseline value to monitor treatment.
- B. Surgery is usually the first step in the treatment for this patient
- C. MRI of pelvic is not essential part of investigation
- D. Colonoscopy can detect synchronous tumor in 20% of patients
- E. Bone scan is a routine staging test for this patient



Answer: A

2. All the followings are complications of diverticular disease of the colon EXCEPT:**

- A. Carcinoma
- B. Stricture
- C. Lower gastrointestinal bleeding
- D. Paracolic abscess
- E. Fistulae



Answer: A

3. All the following are associated with increased incidence of gallbladder carcinoma EXCEPT:

- A. primary sclerosing cholangitis
- B. multiple small gallstones
- C. choledochal cyst.
- D. gallbladder polyps more than one cm
- E. porcelain gall bladder

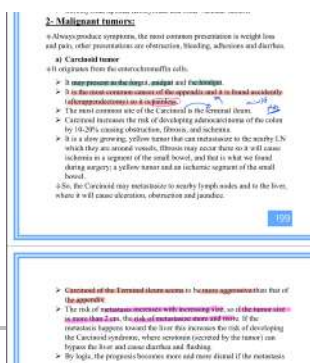
تم تعديل السؤال
والاجابة صحت
018

Answer: B

>2.5cm → RF

4. One of the following is the most important prognostic factor of carcinoid tumor of the appendix:

- A. Age of the patient
- B. Lymphatic involvement
- C. Size of the tumor
- D. Location of the tumor
- E. Mesoappendix involvement



Size → محدودة → Metas → محدودة → prognosis

Answer: C

5. A 70-year-old male patient is referred to the surgical clinic with Esophagogastroduodenoscopy (EGD) that reveals a 3 cm ulcerated lesion 4 cm distal to the gastroesophageal junction, the final pathology reports a poorly differentiated adenocarcinoma, and the EUS suggests a T3N0 lesion. The most appropriate next step would be:

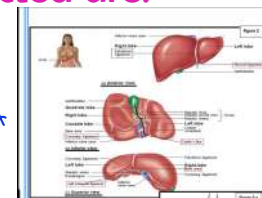
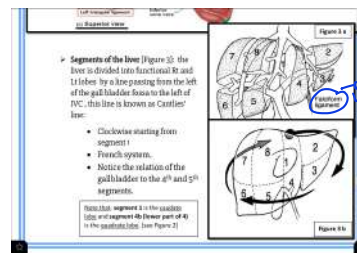
Stage 2/3

Staging	Management	Prognosis
T1a	Endoscopic resection	5-year survival: 92%
T1b	Surgery	5-year survival: 85%
T2	Surgery	5-year survival: 70%
T3	Surgery	5-year survival: 55%
T4	Surgery	5-year survival: 40%
N1	Surgery	5-year survival: 45%
N2	Surgery	5-year survival: 35%
N3	Surgery	5-year survival: 25%
M1	Systemic therapy	5-year survival: 5%

Answer: A

6. Surgeon resects a portion of the liver to the left of the attachment of the falciform ligament. The segments that have been resected are:

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منه يسار

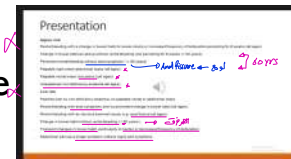


2+3+4b+4a

Answer: A

7. One of the following patients require urgent investigation to malignancy

- A. A 58-year-old with anemia and low MCV * (unexplained anemia is high risk) *anemia*
- B. A 45-year-old male with constipation of 2 weeks duration (low risk symptom) *<60 yrs <6 wks*
- C. A 60-year-old Patient with anal pain and fresh rectal bleeding (it should be bleeding without anal symptoms to consider as high risk) *Anal fissure*
- D. A 24-year-old female patient with right iliac fossa pain *<60 yrs*
- E. A 65-year-old female with full thickness rectal prolapse *>60 yrs*



Answer: A

8. The most common microorganism causing liver abscess is:

Most common site is Right Lobe

- A. Klebsiella
- B. Staphylococcus
- C. proteus
- D. Pseudomonas
- E. E-coli

Klebsiella ← 18

E. coli ← 18

التي

Answer: E

9. All the followings are complications of diverticular disease of the colon EXCEPT:

- A. Carcinoma
- B. Stricture
- C. Lower gastrointestinal bleeding
- D. Paracolic abscess
- E. Fistulae

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2

Answer: A

10. One of the following is a bulk forming laxative:

- ☒ A. Fiber
- B. Castor oil (stimulant)
- C. Polyethylene glycol (osmotic)
- D. Lactulose (osmotic)
- E. Bisacodyl (stimulant)

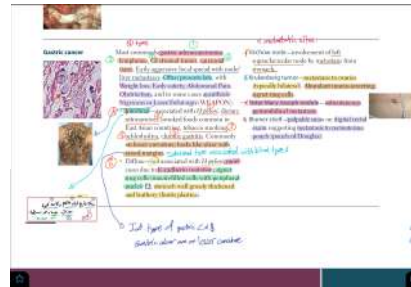
Drug	Indication	Contraindication
Lactulose	Constipation, hepatic encephalopathy	Diarrhea, abdominal pain, intestinal obstruction
Polyethylene glycol	Constipation, bowel preparation	Diarrhea, abdominal pain, intestinal obstruction
Bisacodyl	Constipation, bowel preparation	Diarrhea, abdominal pain, intestinal obstruction
Castor oil	Constipation, bowel preparation	Diarrhea, abdominal pain, intestinal obstruction
Fiber	Constipation, bowel preparation	Diarrhea, abdominal pain, intestinal obstruction

Answer: A

11. The most important risk factor for developing gastric adenocarcinoma is: ****

- A. Smoking
- B. Prior gastric surgery
- C. Alcohol
- D. Obesity
- ☒ E. Helicobacter pylori infection

- Intestinal types (80%)**
 - Associated with *Helicobacter pylori* infection, especially the *CagA* positive, *NapA* positive strains.
 - Associated with *Helicobacter pylori* infection, especially the *CagA* positive, *NapA* positive strains.
 - Associated with *Helicobacter pylori* infection, especially the *CagA* positive, *NapA* positive strains.
- Diffuse types (20%)**
 - Associated with *Helicobacter pylori* infection, especially the *CagA* positive, *NapA* positive strains.
 - Associated with *Helicobacter pylori* infection, especially the *CagA* positive, *NapA* positive strains.
 - Associated with *Helicobacter pylori* infection, especially the *CagA* positive, *NapA* positive strains.



Answer: E

12. A 25 y/o female patient presented with right iliac fossa pain, which of the following is the least possible differential diagnosis? ***

- A. Ovarian cyst
- B. Crohn's disease
- C. Ectopic pregnancy
- D. Mid-menstrual cycle pain
- ☒ E. Pancreatitis

Condition	Location	Characteristics
Ovarian cyst	Right iliac fossa	Acute onset, severe pain, often associated with menstrual cycle.
Crohn's disease	Right iliac fossa	Chronic, recurrent pain, often associated with diarrhea and weight loss.
Ectopic pregnancy	Right iliac fossa	Acute onset, severe pain, often associated with vaginal bleeding.
Mid-menstrual cycle pain	Right iliac fossa	Acute onset, severe pain, often associated with menstrual cycle.
Pancreatitis	Epigastrium	Acute onset, severe pain, often associated with nausea and vomiting.

Answer: E

13. The most commonly involved organ in penetrating abdominal trauma is: **

- A. Colon
- B. Stomach
- ☒ C. Small intestines
- D. Liver
- E. Spleen

Organ	Frequency
Small intestines	Most common
Liver	Second most common
Spleen	Third most common
Colon	Fourth most common
Stomach	Fifth most common

The most commonly injured organs in blunt force abdominal trauma are the **spleen** (e.g., splenic rupture, laceration) and **liver** (e.g., liver hematoma, laceration).

Answer: C

14. All the following are Ranson's prognostic tests useful in the early evaluation of a patient with acute pancreatitis EXCEPT: ***

- A. Serum lactic dehydrogenase (LDH) greater than 350 IU per dl
- B. Leukocytosis
- ☒ C. Amylase value greater than 1000 U per dl
- D. Aspartate aminotransferase (AST) greater than 250 U per dl
- E. Elevated blood glucose

* we Don't rely on Amylase & Lipase & ALT

At Presentation	Non Gallstone	Add = for better reoperation	Gallstone
Age	55 (Thick Elderly)	15	70
Glucose	200	20	220
LDH	350 (just 100 is above)	50	400
AST	250 (AST 10 in above = glucose)	0	250
WBC	10000 (WBC inflammation)	2000	10000

PROGNOSIS (Scoring systems)
Ranson's Prognostic Signs of Pancreatitis
Criteria for acute pancreatitis not due to gallstones
Age > 55 y
WBC > 16,000/mm ³
Blood glucose > 200 mg/dL
Serum LDH > 350 IU/L
Serum AST > 250 IU/L
Criteria for acute gallstone pancreatitis
Age > 55 y
WBC > 16,000/mm ³
Blood glucose > 200 mg/dL
Serum LDH > 350 IU/L
Serum AST > 250 IU/L

Answer: C

15. A 67 y/o female presents with sharp burning upper quadrant pain that radiated to her back, the patient has nausea, but no vomiting, she has chills, but no documented fever. On examination, she has normal vital signs with right upper quadrant tenderness, laboratory workup reveals normal liver function, normal electrolytes, serum amylase and normal white blood cell count, what is the best next step in this patient's scenario?

- A. RUQ ultrasound → For Liver & Gallbladder
- B. EGD
- C. Plain abd XRAY
- D. Cholecystikinin stimulated cholescintigraphy
- E. Computed tomography of the abdomen

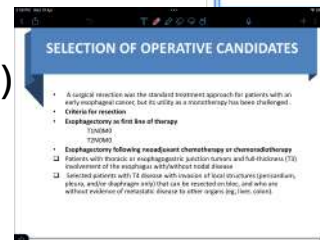


ERCP ← cholelith. ← Jaundice 80% (أبوي)

Answer: A

16. Follow up endoscopy was done for a patient with known barret's esophagitis, biopsy was taken and it showed metaplasia with high grade dysplasia, the best next step in management of this patient is:

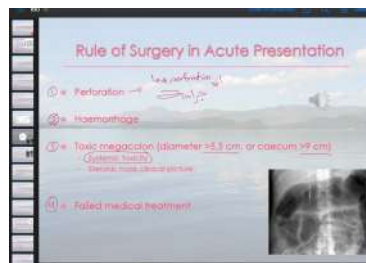
- A. Esophagectomy
- B. Increase dose of PPI
- C. Increase frequency of follow up endoscopy
- D. Anti reflux surgical procedure (nissen fundoplication)
- E. H pylori eradication therapy



Answer: A

17. A 30 y/o male patient with acute colitis presumed to be UC, all of the following represent an indication for urgent surgical treatment, except: ***

- A. Massive bleeding
- B. Perforation
- C. The presence of PSC
- D. Sepsis related colitis
- E. Toxic megacolon



Answer: C

18. Which of the following is the most common cause of mechanical small bowel obstruction: **

- A. GBS
- B. Adhesions**
- C. Hernias
- D. Strictures
- E. Tumors

Adhesions

ABC

Etiology of bowel obstruction [20184]	
SBO	LBO
<ul style="list-style-type: none"> Bowel adhesions: fibrous intraperitoneal strands of connective (scar) tissue between organs and tissues that are not usually physiologically connected Most common cause of SBO Etiology: history of abdominal surgery, abdominal tuberculosis Abdominal x-ray shows dilation of several small bowel loops [20] Incarcerated hernias: second most common cause of SBO 	<ul style="list-style-type: none"> Malignant tumors (e.g., colorectal carcinoma): most common cause of LBO Diverticulitis [20] Volvulus [20]

Answer: B

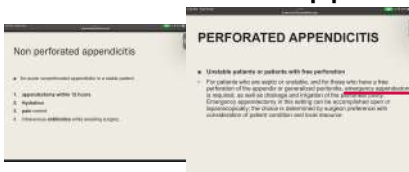
19. A 22 y/o male patient, presented to the ED with right iliac fossa pain for 18 hrs, has reduced appetite, and nausea, no urinary symptoms or diarrhea, on examination, his temperature was 38.5 c and his abdomen was tender, at the RIF, with guarding, the most appropriate next step action after performing the necessary investigation is to: (I'm not sure about the answer here)

Right Iliac Fossa

Appendicitis

perforated Appendicitis عوده افراحت

- A. Admit the patient at the surgical ward to start regular IV Abx to cover G-ve and anaerobes
- B. Refer patient to the urology team for further treatment
- C. Arrange patient for theatre as a definitive treatment for his illness**
- D. Discharge home and re-evaluate after 6 hrs at the outpatient clinic
- E. Book him for upper endoscopic examination next morning



18 اعتراف perforated في الجواب C و اعلمت
برأيي انه ليس perforated
Bec. of localized tenderness
في الجواب A

Answer: C

20. Which of the following bariatric procedures is known to reduce appetite and weight by affecting the hunger hormone:

- A. laparoscopic reux – en – y gastric bypass
- B. laparoscopic sleeve gastrectomy**
- C. biliopancreatic diversion
- D. laparoscopic adjustable gastric banding
- E. intragastric balloon



Answer: B

21. For a patient with PUD one of the following manifestations increase the possibility of gastrinoma:

- A. jaundice
- B. constipation
- C. abdominal distention
- D. flatulence
- E. diarrhea**

Zollinger-Ellison syndrome
Gastrin-secreting tumor (gastrinoma) of duodenum or pancreas. Acid hypersecretion causes recurrent ulcers in duodenum and jejunum. Presents with abdominal pain (peptic ulcer disease, distal ulcers, diarrhea/malabsorption). Positive secretin stimulation test: ↑ gastrin levels after administration of secretin, which normally inhibits gastrin release. May be associated with MEN1.



Answer: E

22. You were assisting the senior surgeon in appendectomy for twenty years old patient, at the end of the procedure the nurse in charge gave you the specimen, you should: ***

- A. Refuse the action by the nurse and ask her to keep it
- ☒ B. Carefully label it and send it for histological examination
- C. Send it to the surgical pathology museum
- D. Give it back to the nurse to put it in the medical disposable
- E. Give it to the patient to keep it

Answer: B

23. In the stomach, which of the following substances is released from the D cells:

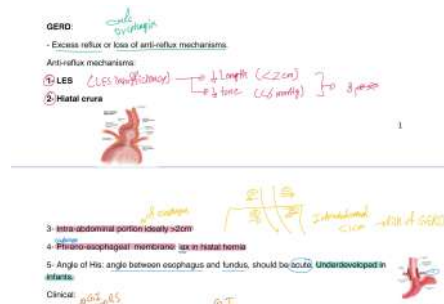
- A. Pepsin – chief
- B. Gastrin – g cells
- C. Histamine – enterchromaffin like cell
- D. Ghrelin – p/d1
- ☒ E. Somatostatin – d cells



Answer: E

24. Which of the following is not a physiologic barrier contributing in prevention of gastroesophageal reflux: **

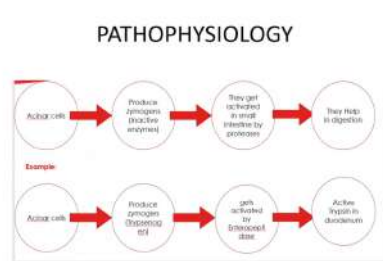
- A. Diaphragmatic crura
- B. Angle of his
- C. Intraabdominal portion of the esophagus
- ☒ D. Delayed gastric emptying
- E. Tonic pressure of the les



Answer: D

25. Which of the following enzymes has been implicated in the etiology of pancreatitis: ***

- A. Gastrin
- B. Pepsin
- ☒ C. Trypsin
- D. Lipase
- E. Amylase



Answer: C

26. Which of the following is not a symptom of esophageal cancer:

- A. Tumor related anorexia
- B. Weight loss
- ☒ C. Early satiety
- D. Aspiration pneumonia
- E. Dysphagia

CLINICAL MANIFESTATIONS:

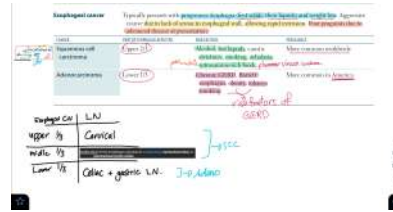
- Early intramucosal cancers are not specifically symptomatic
- Early symptoms of esophageal cancer are subtle and nonspecific: Transient "sticking" of apples, meat, hard-boiled eggs, or bread. Retrosternal discomfort or burning sensation.
- Progressive solid food dysphagia
- Weight loss, dysphagia, changes in diet, tumor-related anorexia.
- Regurgitation of saliva or food uncontaminated by gastric secretions
- Aspiration pneumonia
- Hoarseness
- Chronic gastrointestinal blood loss.
- Tracheobronchial fistulas: Life expectancy is less than four weeks following the development of this complication.



Answer: C

27. All of the following are risk factors for esophageal cancer except:

- A. Alcohol consumption
- B. Poor nutritional status
- C. Smoking
- D. Drinking hot beverages
- E. High intake of fruits and vegetables



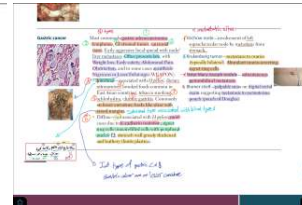
Answer: E

28. The most important risk factor for developing gastric cancer is: ***

- A. Smoking
- B. Prior gastric surgery
- C. Alcohol
- D. Obesity
- E. H pylori infection

H. pylori infection, gastric atrophy, and gastritis

- H. pylori is the most important risk factor
- Most cases of gastric cancer are associated with the presence of H. pylori in the stomach
- H. pylori infection is a common bacterial infection with a high prevalence in the developing world. Factors include crowded living conditions, low socio-economic status
- H. pylori infection doubles the risk of non-cardiac gastric cancer and the risk is even higher in those with the right-positive status
- The progression from chronic atrophic gastritis to cancer can be induced by H. pylori infection. This is a premalignant condition that increases the risk of gastric cancer by 12-fold and gastric cancer by 14-fold
- Risk increases with the severity of gastric atrophy such that those with nodular gastric atrophy have more than 10 times increased risk of gastric cancer



Answer: E

29. All are correct about C difficile colitis except:

- A. Most likely affect elderly patients with comorbidities
- B. The use of cephalosporin based abx is a risk factor
- C. Surgery is the first line of management
- D. Oral but not intravenous vancomycin is of help in this case
- E. Can be diagnosed by performing flexible sigmoidoscopy



Produces toxins A and B, which damage enterocytes. Both toxins lead to watery diarrhea → pseudomembranous colitis. Often 2° to antibiotic use, especially clindamycin, ampicillin, cephalosporins, fluoroquinolones; associated with PPIs. Fulminant infection: toxic megacolon, shock.

Difficult to cure. Diagnosed by PCR or antigen detection of one or both toxins in stool. Treatment: oral vancomycin or fidaxomicin. For recurrent cases, consider repeating prior regimen or fecal microbiota transplant.

Answer: C

30. The modality of choice to diagnose a patient with gastric cancer is:

- A. Flexible endoscopy with multiple biopsy
- B. Diagnostic laparoscopy
- C. Double contrast barium swallow
- D. Ct
- E. Endoscopic ultra sound

Double-contrast barium swallow

- Cost effective and 90% diagnostic accuracy
- However, unable to distinguish benign from malignant lesions
- Endoscopy preferable

Flexible upper endoscopy

- Modality of choice once gastric cancer is suspected.
- Multiple biopsies (seven or more required) from ulcer edges.
- Avoid biopsying ulcer crater (may reveal necrotic debris only).
- Note the size, location, and morphology of the tumour.

Diagnostic laparoscopy

- Due to the inherent inaccuracies of CT and EUS, laparoscopy is indicated for evaluation of patients with locoregional disease
- Can detect metastatic disease in 30% of patients who are judged to be resectable on CT and EUS.
- Addition of laparoscopic ultrasound may improve detection of liver and peritoneal metastasis
- Cytology of peritoneal fluid obtained at laparoscopy may reveal the presence of free intraperitoneal gastric cells
- CT (computed tomography)
 - Chest, abdomen, and pelvis
 - Cannot distinguish T1 and T2 tumour (i.e. early gastric cancers)
 - Cannot detect small (<5mm) metastasis in the liver or on peritoneal disease.
 - Nodal detection relies on size and is a poor predictor of involvement particularly in the chest.
 - PET-CT may improve the detection of distant metastasis. Not a routine exam. Mainly used in follow-up and where there is a suspicion of progression.
 - Overall accuracy of 80-85%.

Answer: A

31. In order to diagnose acute pancreatitis, 2 out of three which of the following criteria are required? **

- A. Epigastric pain, radiological evidence of pancreatitis, serum lipase at least 2 times normal
- B. Epigastric pain, radiological evidence of pancreatitis, serum amylase at least 3 times normal
- C. Cholelithiasis, radiological evidence of pancreatitis, serum amylase at least 3 times normal
- D. Epigastric pain, cholelithiasis, serum lipase at least 2 times normal
- E. Cholelithiasis, R/E of pancreatitis, serum lipase at least times normal



Answer: B

32. The most common risk factor for developing adenocarcinoma of the esophagus, is:

- A. Alcohol
- B. H pylori infection
- C. Obesity
- D. Barrit's metaplasia**
- E. Smoking



B- Adenocarcinoma

The majority of cases are located near the gastroesophageal junction and are associated with endoscopic evidence of Barrett's esophagus.

- Adenocarcinoma arising in Barrett's esophagus may present as an ulcer, a nodule, an altered mucosal pattern, or no visible endoscopic abnormality
- Early adenocarcinoma not associated with Barrett's esophagus arises from an ulcer, plaque, or nodule near the gastroesophageal junction

Answer: D

33. One of the following represents a major risk of ruptured hydatid liver cyst: ***

- A. rupture to bronchial tree
- B. rupture to pericardium
- C. rupture to stomach
- D. biliary rupture
- E. anaphylactic shock**

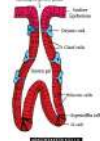
Features	Cystic echinococcosis	Alveolar echinococcosis
Incubation time	• Up to 50 years	• 5-10 years
Onset	• Usually asymptomatic	• Typically nonspecific symptoms
Hepatic	<ul style="list-style-type: none"> • Single hepatic cyst (hydatid cyst) • Symptoms depend on the location and size of the cyst • Cyst rupture may cause anaphylactic reaction • Hepatomegaly → RUQ pain • Malaise, nausea, vomiting 	<ul style="list-style-type: none"> • Hepatic cyst • Hepatomegaly → RUQ pain • Malaise, weight loss, nausea, vomiting • Cyst that invades and destroys the liver and surrounding tissue • Portal hypertension • Budd-Chiari syndrome • Liver cirrhosis • May resemble hepatocellular carcinoma
Extrahepatic	<ul style="list-style-type: none"> • Lung involvement in 25% of cases → chest pain, cough, dyspnea, hemoptysis • Involvement of other organs is rare 	<ul style="list-style-type: none"> • Primary involvement of other organs is very rare (< 1% of cases) • Spread to other organs (especially lungs, brain, spleen) in ~15% of cases

Answer: E

Final 2018

34. Which of the following statements is true regarding the appendix?

- A. The appendicular artery arises from the right colic artery. → It is a terminal branch of ileocolic artery
- B. The commonest position of the appendix is pelvic. → Retrocecal
- C. The position of the base of the appendix is variable. → Base is fixed, tip is not fixed
- D. The submucosa is rich in lymphoid follicles.**
- E. Argentaffin cells are found in the apex of the crypts

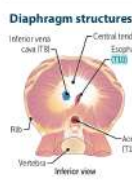


Answer: D

35. Which of the following structures does not pass through one of the three main diaphragmatic openings?

- A. Aorta
- B. Left vagus nerve
- C. Left phrenic nerve**
- D. Inferior vena cava
- E. Esophagus

while the right passes



Structures perforating diaphragm:
 • At T8: IVC, right phrenic nerve (left)
 • At T10: esophagus, vagus (CN 10; 2 trunks)
 • At T12: aorta (red), thoracic duct (white), azygos vein (blue) ("At T8-2 at the red, white, and blue")
 Diaphragm innervated by C3-5 (phrenic). Pain from diaphragm irritation can be referred to shoulder (CS) and trapezius ridge (C3-4). Phrenic nerve injury causes elevation of the ipsilateral hemidiaphragm on x-ray.

Number of letters = T level:

T8: vena cava (IVC)
 T10: (Esophagus)
 T12: aortic hiatus

I ate (8) ten eggs at twelve.

C3, 4, 5 keeps the diaphragm alive.

Other bifurcations:

- The Common Carotid bifurcates at C4
- The Trachea bifurcates at T4
- The abdominal aorta bifurcates at L4

Answer: C

36. A 72-year-old man, a long-standing smoker, complains of progressive dysphagia with food sticking behind his mid-sternum for 3 months. The problem started with solids, but now he has difficulty with liquids. He has lost 14 kg of weight during this time. The most likely diagnosis is:

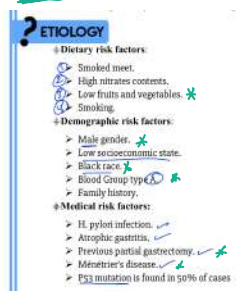
fine obstruction (mechanical)

- A. Achalasia of cardia (Both)
- ☒ B. Carcinoma of esophagus
- C. Diffuse esophageal spasm (Both)
- D. Gastro-esophageal reflux disease (GERD) ✗
- E. Pharyngeal diverticulum ✗

Answer: B

37. Which of the following is not a risk factor for gastric cancer? ***

- A. Pernicious anemia
- B. Helicobacter pylori
- C. Partial gastrectomy
- ☒ D. Blood group O
- E. Gastric polyps



Answer: D

38. Which of the following statements is FALSE of gastrointestinal (GI) secretions?

- A. Pancreatic fluid is alkaline.
- B. The chloride content of gastric fluid is around 110 mmol/L.
- ☒ C. Gastric fluid has a high concentration of potassium.
- D. Bile has a pH of 7.2.
- E. Most losses can be replaced with normal saline with or without potassium

Answer: C

39. Which of the following statements is FALSE?

- A. The adult rectum is approximately 15 cm long.
- ☒ B. The superior rectal artery arises from the internal iliac artery.
- C. Is mainly innervated via parasympathetic fibers from S2 and 3.
- D. The superior rectal veins ultimately drain into the portal system.
- E. The lymphatics drainage is to the inferior mesenteric and internal iliac groups

medic



Answer: B

40. Which of the following statements about hemorrhoids is TRUE?

- A. Primary hemorrhoids are typically 2 on the left and one right.
- B. External hemorrhoids are a sort of erectile tissue.
- ☒ C. The internal hemorrhoidal plexus extends from the anorectal ring to the dentate line.
- D. Stapled hemorrhoidectomy has an extremely low recurrence rate. (High % only for internal Hemorrhoids)
- E. Hemorrhoidectomy is indicated for failed medical treatment of 2nd-degree hemorrhoids.

♦ Sites: (When examined in the left lateral position)

- Right anterior (11 o'clock).
- Right posterior (7 o'clock).
- Left lateral (3 o'clock).

External hemorrhoids comprise the dilated vascular plexus that is located below the dentate line and covered by squamous epithelium.

3rd & 4th

Answer: C

Surgery for hemorrhoids [7][6]

Indications [6][10]

- Symptomatic grade III and IV internal hemorrhoids
- Symptomatic external hemorrhoids or combined external and internal hemorrhoids with prolapse
- No improvement after, or inability to tolerate, medical and office-based interventions

41. Which of the following statements regarding direct inguinal hernias is TRUE?

- A. They protrude medially to the inferior epigastric vessels
- B. They are common in women (*femoral hernia*)
- C. They commonly reach the scrotal sac in men
- D. They obstruct more commonly than indirect hernias
- E. They are more common than indirect inguinal hernias in men



Answer: A

42. Which one of the followings is a good predictor for spontaneous closure of enterocutaneous fistula?

- A. Previous radiation therapy
- B. Presence of underlying abscess
- C. Long fistula tract
- D. Short fistula tract
- E. Presence of foreign body in the fistula tract

PATHOPHYSIOLOGY	
Types	<ul style="list-style-type: none"> Enterocutaneous Fistula - From IGT or other sources (infectious - based on data) Causes <ul style="list-style-type: none"> Ischemic colitis Thyroid resection Colorectal surgery Diverticulitis Perforation of a colonic diverticulum
Investigations	<ul style="list-style-type: none"> CT scan - to rule out other abdominal pathology Endoscopy Biopsy
Management	<ul style="list-style-type: none"> Medical therapy Surgery

Answer: C

43. What is the most commonly associated risk factor for pancreatic adenocarcinoma? *****

- A. Smoking
- B. Chronic pancreatitis
- C. Diabetes mellitus
- D. Obesity
- E. Lynch syndrome

Pancreatic adenocarcinoma

Very aggressive tumor arising from pancreatic ducts (disorganized glandular structure with cellular infiltration), often metastatic at presentation, with average survival = 1 year after diagnosis. **Timon** more common in pancreatic head (lead to obstructive jaundice). Associated with CA 19-9 tumor marker (also CEA, less specific).

Risk factors:

- 1. Tobacco smoking (strongest risk factor)
- 2. Chronic pancreatitis (especially > 20 years)
- 3. Diabetes
- 4. Age > 50 years

Often presents with:

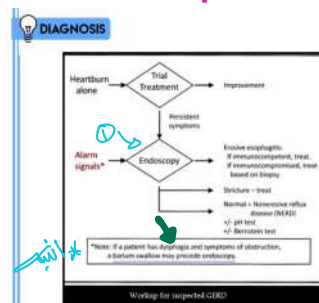
- 1. Abdominal pain radiating to back
- 2. Weight loss (due to malabsorption and anorexia)
- 3. Migratory thrombophlebitis - redness and tenderness on palpation of extremities (Trousseau syndrome)
- 4. Obstructive jaundice with palpable, nontender gallbladder (Courvoisier sign)

Treatment: Whipple procedure, Chemo-radiotherapy, Li-bromoni-Succinyl-Endomorphin

Answer: A

44. What is the initial test for evaluation of patients with gastroesophageal reflux disease?

- A. 24-pH manometry
- B. Upper endoscopy
- C. Esophageal manometry
- D. Barium swallow
- E. Gastric emptying study



Answer: B

45. One of the followings is TRUE about diverticular disease:

- A. Most of patients will have complications during their life
- B. Young age is a good prognostic sign for the disease course
- C. Bleeding is the most common complication (*perforation*)
- D. Colonoscopy should be done during the acute attack to exclude concomitant colon cancer
- E. It is not precancerous

Answer: E

46. Which one of the following types of cholecystitis may mimic gall bladder adenocarcinoma?

- A. Emphysematous cholecystitis
- B. Xanthogranulomatous cholecystitis
- C. Acute calculous cholecystitis
- D. Acute acalculous cholecystitis
- E. Chronic cholecystitis



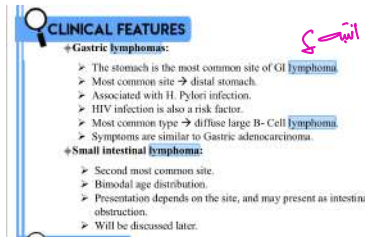
Xanthogranulomatous cholecystitis

- A rare inflammatory disease of the gallbladder characterized by a focal or diffuse destructive inflammatory process.
- A foreign body-giant cell reaction that leads to formation and accumulation of xanthoma cells.
- Its importance lies in the fact that it is a benign condition that may be confused with carcinoma of the gallbladder.

Answer: B

47. The most common location of large bowel lymphoma is:

- A. Rectum
- B. Sigmoid
- C. Descending colon
- D. Transverse colon
- E. Cecum



Gastrointestinal lymphoma

- We talked about GI lymphoma in Chapter 1, here we'll concentrate on the small intestine.
- The 2nd most common site for GI lymphoma is the small intestine.
- It can present with obstructing, bleeding, anorexia or weight loss.
- Usually seen in older people.
- More common in ileum because it contains more lymph nodes.
- Associated with celiac disease and immunosuppression (AIDS).
- Treatment is medical unless complicated.
- Complications are perforation, hemorrhage, obstruction, and intussusception.

Answer: E

48. The least effective bariatric procedure in term of excess weight loss (EWL) is:

- A. Laparoscopic sleeve gastrectomy
- B. Laparoscopic adjustable gastric band
- C. Laparoscopic gastric bypass Roux-en-Y
- D. Laparoscopic minigastric bypass
- E. Laparoscopic biliopancreatic diversion with duodenal switch



Answer: B

49. All true about colorectal cancer EXCEPT:

- A. More common in young age group
- B. the stage can predict the survival
- C. Colonoscopy is crucial in the diagnosis
- D. Staging of colorectal cancer does not include checking for bone metastasis
- E. Tenesmus as a symptom can occur in benign diseases as well as rectal cancer

Final staging

- T8a
- Consider postoperative chemotherapy
- Lymph node invasion
- Perforation
- Obstruction
- Peritoneal involvement
- Poorly differentiated

Answer: A

50. One is correct about familial adenomatous polyposis (FAP):

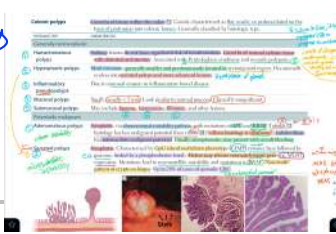
- A. It is a mutation at chromosome number 8
- B. Screening for colonic polyps should start at the age of 25
- C. The risk of adenocarcinoma is near 75%
- D. left hemi colectomy is the operation of choice in affected patients
- E. Osteoma is a recognized extra intestinal manifestation



Answer: E

51. One of the following does not increase the risk of colorectal cancer:

- A. Ulcerative colitis for 15 years
- B. A 2 cm Villous adenoma in the rectum
- C. 10 polyps in the colon two of them more than 1 cm in size
- D. Hyperplastic polyp
- E. 20 years of Crohn's colitis



Predisposing conditions

- Longstanding inflix, Bowel disease UC and CD
- Chronic enteropathy
- Other gastrointestinal and systemic
- Chronic immunosuppression

Answer: D

52. The commonest complication of a liver hydatid cyst is (among the choices): **

- A. Biliary communication.
- B. Free rupture to the peritoneal cavity.
- C. Cyst infection.
- D. Compression of the hepatic veins.
- E. Fistulization to a hollow viscus.

Signs and symptoms:

- Most of the times the cyst remain uncomplicated and the symptoms they induce are related to the pressure or mass size (when the size is > 10cm) they exert on the liver, so the signs and symptoms are:
- 1. RUQ pain: most common symptom.

Notes:

- I. The liver is affected (diseased) in 60% of the cases while the lungs are affected in 30% of the cases. In 90% of the cases there is single organ involvement.
- II. The Right lobe of the liver is mostly affected in 80% of the cases when the liver is affected, and in third of the cases the cysts are multiple.

Answer: A

53. Which is true regarding fibrolamellar variant of hepatocellular carcinoma?

- A. The tumor is small in size.
- B. It is usually a degeneration of focal nodular hyperplasia.
- C. The underlying liver is usually healthy.
- D. Resection is more difficult than the standard hepatocellular type.
- E. Alpha-fetoprotein is usually raised.

Fibrolamellar variant of HCC:

- Seen in younger patients, more in the West. AFP usually not elevated. Better prognosis than HCC.



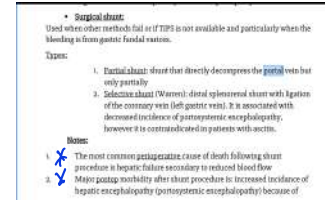
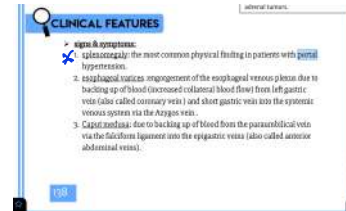
Answer: C

54. The most serious complication of portal hypertension is?

- A. Bleeding hemorrhoids.
- B. Infection of ascites.
- C. Ruptured esophageal varices.
- D. Encephalopathy.
- E. Hypersplenism.

Complications:

- The most feared complication is bleeding from esophageal varices, the mortality rate from acute esophageal variceal bleeding is 50%.
- The diagnosis of esophageal varices is based on: signs and symptoms + confirmed by endoscopy



Answer: C

55. One is true in regarding trauma of the spleen:

- A. This organ is rarely involved in blunt trauma. (Liver & spleen most common)
- B. Splenic preservation should be the rule when there are associated significant injuries.
- C. Immunization against encapsulated bacteria is indicated in splenectomy patients.
- D. Overwhelming postsplenectomy sepsis (OPSS) is more than 10%. (it's about 1%)
- E. Non-operative management is limited to grades 1&2.



Regardless of the grade

Answer: C

56. The vascularized ligament of the spleen is:

- A. Lienorenal.
- B. Phrenosplenic.
- C. Splenocolic.
- D. Gastrosplenic.
- E. Pancreaticosplenic.

LIGAMENT	CONNECTS	STRUCTURES CONTAINED	NOTES
Falciform ligament	Liver to anterior abdominal wall	Ligamentum teres hepatis (remnant of fetal umbilical vein), patent paraumbilical vessels	Derivative of ventral mesentery
Hepatoduodenal ligament	Liver to duodenum	Part of lesser omentum, contains hepatic artery, portal vein, common bile duct	Derivative of ventral mesentery (Pringle maneuver - ligament is compressed temporarily to reduce blood flow)
Hepatogastric ligament	Liver to lesser curvature of stomach	Gastric vessels	Derivative of ventral mesentery (Part of lesser omentum) May be cut during surgery to access lesser sac
Gastrosplenic ligament	Gastric curvature and transverse colon	Gastrosplenic vessels	Derivative of dorsal mesentery (Part of greater omentum)
Gastrosplenic ligament	Gastric curvature and spleen	Splenogastric vessels	Derivative of dorsal mesentery (Part of greater omentum)
Splenorenal ligament	Spleen to left posterior abdominal wall	Splenic artery and vein, tail of pancreas	Derivative of dorsal mesentery

Peritoneal reflections (ligaments):

- Splenocolic ligament.
- Splenorenal (Lienorenal) ligament which contains the splenic veins, the tail of the pancreas and lymph nodes
- Gastrosplenic ligament which contains short gastric arteries, the left gastroepiploic vessels and lymph nodes
- Splenophrenic ligament.

accessory spleen, mc site is the **splenic hilum** (cases), it could also be tail of pancreas or in retroperitoneum.

Answer: A

57. Barrett's esophagus is characterized by which of the following epithelial lining?

- A. Gastric columnar epithelium
- B. Stratified squamous epithelium non keratinized
- C. Stratified squamous keratinized
- D. Pseudostratified columnar epithelium
- E. Intestinal columnar epithelium



Answer: E

58. In upper GI bleeding due to gastric ulcer, it is not recommended to do which of the following?

- A. History and physical exam
- B. IV fluids resuscitation
- C. IV Proton pump inhibitor
- D. Gastric lavage with Nasogastric tube
- E. Serial Hb monitoring

Gastric lavage

- Method: administration of warm saline or water via a large-bore orogastric tube, followed by aspiration of the fluid, in order to remove pills and pill debris. **DOSAGE** 100-200 mL
- No clear indications.
- Should only be performed in extremely rare situations and by experienced individuals.

Contraindications

- Risk of aspiration
- Ingestion of strong acids or alkalis
- Increased risk of GI bleeding or perforation

Risks include:

- Aspiration pneumonia or pneumonia
- Esophageal or gastric perforation
- Fluid and electrolyte imbalances
- Cardiac arrhythmias

Bleeding: MC indication for surgery in duodenal ulcers (typically, posterior duodenal ulcer, bleeding from GD artery).

Treatment: get IV access and blood. PPI IV. If >6 units in 24 hours of hypotensive this needs intervention. Endoscopy: look for active bleed, vessel, visible clot. Treat. Surgery to ligate GDA. If patient already on PPI, consider truncal vagotomy and pyloroplasty or HSV. If larger ulcer: vagotomy and antrectomy.



Answer: D

59. Which is false regarding Barrett's esophagus?

- A. Asymptomatic Barrett's requires annual follow up
- B. Symptomatic Barrett's requires medical therapy with PPI
- C. Anti-reflux surgery can reverse metaplasia in 35% and improve symptoms
- D. Bleeding, ulceration, and structure can complicate the disease
- E. Patients with mild dysplasia need more frequent screening

Barrett's esophagus

- It's an intestinal metaplasia of lower esophageal mucosa (change from stratified squamous epithelium to simple columnar epithelium with goblet cells).
- Risk factors are smoking and GERD, but many cases lack these risk factors.
- Diagnosed by endoscopy.
- Management is by PPI and follow-up:
 - I. No dysplasia → 3-5 years
 - II. Low grade dysplasia → 6-12 months
 - III. High grade dysplasia → 3 months

Answer: A (every 3-5 years)

60. A 38-year-old woman presents to the emergency department with a 12 hour history of severe pain over the right upper quadrant and vomiting. On examination, her pulse rate is 90/min and her temperature is 37.6°C. There is tenderness over the right hypochondrium but a soft abdomen. She says that she gets colicky pain over this region following fatty meals. Select the most likely diagnosis:

- A. Acute cholecystitis
- B. Acute pancreatitis
- C. Acute hepatitis
- D. Perforated duodenal ulcer
- E. Renal colic

Systemic symptoms + RUQ pain

No Jaundice

Handwritten table for differential diagnosis:

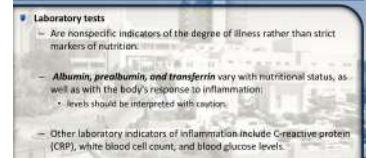
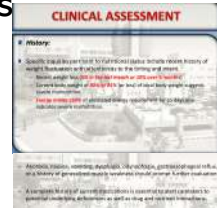
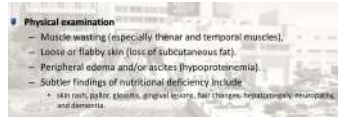
	Pain	Colic	AC	Jaundice	Systemic	Change
Pain	✓	✓	✓	✓	✓	✓
Colic	✓	✓	✓	✓	✓	✓
Jaundice	×	×	×	×	×	×
Systemic	×	×	×	×	×	×
Change	×	×	×	×	×	×

colic have CBD stones as well.

Answer: A

61. A major problem in nutritional support is identifying patients at risk. All of the following can identify the patient at risk, EXCEPT: (general)

- A. Weight loss of greater than 15% over 2 to 4 months
- B. Serum albumin.
- C. Malnutrition as identified by Physical examination.
- D. Serum transferrin.
- E. Hemoglobin Level.



Answer: E

Final 2017

62. Which finding suggests the diagnosis of chronic ulcerative colitis as opposed to Crohn's colitis?

- A. Endoscopic evidence of backwash ileitis.
- B. Granulomas on biopsy.
- C. Anal fistula.
- D. Rectal sparing.
- E. Cobblestone appearance on barium enema

Backwash ileitis

- **Definition:** Inflammation of the terminal ileum in the context of ulcerative colitis
- **Epidemiology:** affects approximately 10–20% of all patients diagnosed with ulcerative colitis
- **Localization:** typically affects an area a few centimeters proximal to the ileocecal valve
- **Pathophysiology:** The pathological mechanism is not fully understood.
- **Differential diagnosis:** Clinically, backwash ileitis is hardly relevant but its presence makes it harder to differentiate between ulcerative colitis and Crohn disease.



Answer: A

63. Activation of trypsinogen as an initial step in acute pancreatitis is conducted by:

- A. Lipase
- B. Amylase
- C. Enteropeptidase
- D. Phospholipase
- E. Elastase

Pancreatic secretions	Isotonic fluid; low flow → high Cl ⁻ ; high flow → high HCO ₃ ⁻	NOTES
1. α-amylase	Starch digestion	Secreted in active form
2. Lipases	Fat digestion	
3. Proteases	Protein digestion	
4. Trypsinogen	Converted to active enzyme trypsin → activation of other proenzymes and clearing of additional trypsinogen molecules into active trypsin (positive feedback loop)	Includes trypsin, chymotrypsin, elastase, carboxypeptidases. Secreted as proenzymes also called zymogens. Dipeptides and tripeptides degraded within intestinal mucosa via intracellular process. Converted to trypsin by enteropeptidase, a brush-border enzyme on duodenal and jejunal mucosa.

Answer: C

64. Pseudo-obstruction syndrome (Ogilvie's), all true except:

- A. Increased sympathetic tone and decreased parasympathetic tone.
- B. More on the left side
- C. Risk of perforation is 15%

Acute colonic pseudo-obstruction/Ogilvie syndrome

❖ Ogilvie syndrome, is thought to result from an autonomic imbalance, which results from decreased parasympathetic tone or excessive sympathetic output.

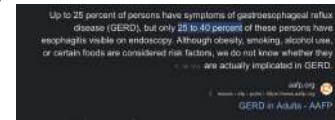
❖ is characterized by a loss of peristalsis and results in the accumulation of gas and fluid in the colon.

Acute colonic pseudo-obstruction/Ogilvie syndrome
 ❖ This condition usually occurs in the setting of a wide range of medical or surgical illnesses.
 ❖ If untreated, colonic ischemia or perforation can occur.
 ❖ The right colon and cecum are most commonly involved.
 ❖ The risk of perforation ranges from 3–15%.

Answer: B

65. Wrong about GERD:

- A. 90% will have esophagitis on endoscopy due to reflux (60% will show normal mucosa on endoscopy).
- B. Not all types of reflux are diagnosed by PH monitoring
- C. Barium swallow > hiatal hernia



3. Sliding hiatal hernia (Type I):

- Both the stomach & GE junction herniate into the thoracic cavity.
- It's the most common type of hiatal hernia. (90% of cases)
- Mostly asymptomatic, but may present with GERD, esophagitis, dysphagia. And premature reflux.
- Diagnosed by LRA series, Manometry and endoscopy with biopsy.
- Treatment is medical in 85% of cases, and surgical in 15% of cases.

Answer: A

66. All of the following statements about diverticular disease are true, EXCEPT: **

- A. It is more common in the West than in Asia and Africa. ✓
- B. A low-fiber diet may predispose to development of diverticulosis. ✓
- C. It involves sigmoid colon in more than 90% of patients. ✓
- D. Sixty per cent develop diverticulitis sometime during their lifetime. ✓
- E. It is the most common cause of massive lower gastrointestinal hemorrhage. ✓



Diverticular haemorrhage
<ul style="list-style-type: none"> 3-5% The majority of diverticular haemorrhages cease spontaneously May need angiography, emergency resection. Elderly patient with high mortality

- Diverticular bleeding** [17][18]
 - Epidemiology
 - Diverticulosis is the most common cause of lower GI bleeding in adults.
 - Occurs in ~ 5% of individuals with diverticulosis

Answer: D

67. Genetic defect associated with HNPCC:

- A. APC (FAP)
- B. MLH1/MSH2
- C. P53 (Li Fraumeni sx)

Lynch syndrome

Also called **hereditary nonpolyposis colorectal cancer (HNPCC)**. Autosomal dominant mutation of mismatch repair genes (e.g. **MLH1, MSH2**) with subsequent **microsatellite instability < 80%** progress to CRC. Proximal Colon is always involved. Associated with **Endometrial, Ovarian, and Skin cancers**. Merrill Lynch has CEOs.

Answer: B

68. Wrong about hemorrhoids:

- A. 2 right hemorrhoid quadrants and 1 left
- B. Mainly in young adult
- C. Grade III > surgery
- D. Grade II refractory to medical treatment >> banding

NOMENCLATURE AND CLASSIFICATION

- Grade 1** internal hemorrhoids are those that bulge into the lumen of the anal canal and may produce painless bleeding.
- Grade 2** internal hemorrhoids are those that protrude at the time of a bowel movement but reduce spontaneously.
- Grade 3** internal hemorrhoids are those that protrude spontaneously or at the time of a bowel movement and require manual replacement.
- Grade 4** internal hemorrhoids are those that are permanently prolapsed and irreducible despite attempts at manual replacement. They may or may not be complicated.

Treatment in general

- Medical; 1st and 2nd degree
- Minor procedures; failed medical Rx 1st and 2nd degree, some 3rd degree
- Surgery; 3rd and 4th degree

Answer: B

69. Wrong about anal fissures:

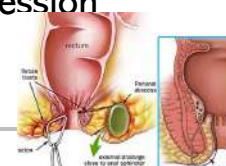
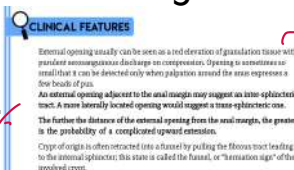
- A. Anterior fissures are more common than posterior fissures
- B. Sentinel pile >> chronic fissure
- C. Usually hyperactive internal sphincter
- D. Acutely managed by bulking agents, sitz baths and good hygiene.



Answer: A

70. Wrong about fistula:

- A. Intersphincteric > most common
- B. Seton is associated with negligible incontinence
- C. External opening usually can be seen as a red elevation of granulation tissue with purulent serosanguinous discharge on compression



Seton: thick suture placed through fistula tract to allow slow transection of sphincter muscle; scar tissue formed will hold the sphincter muscle in place and allow for continence after transection.

- D. An external opening adjacent to the anal margin may suggest an intersphincteric tract
- E. More common in males than females

chronic phase (fistula)

- External opening usually can be seen as a red elevation of perianal tissue with gradual serous discharge on compression.
- Opening is sometimes so small that it can be detected only when palpation around the anal expresses a few beads of pus

chronic phase (fistula)

- An external opening adjacent to the anal margin can be seen as a red elevation of perianal tissue with gradual serous discharge on compression.
- Opening is sometimes so small that it can be detected only when palpation around the anal expresses a few beads of pus

Answer: B

71. Factor that increases the risk of cholangiocarcinoma the most is:
PSC (primary sclerosing cholangitis)

Risk factors:

1. Cholelithiasis
2. Primary sclerosing cholangitis
3. Ulcerative colitis
4. Radiation exposure
5. Toxic exposure
6. Parasitic infection

72. All of the following statements are true about cholecystitis, except: **

- A. Emphysematous cholecystitis should be treated conservatively
- B. Acalculous cholecystitis is associated with poor outcome comparing to calculus cholecystitis
- C. Golden period cholecystectomy is superior to interval cholecystectomy
- D. Xanthogranulomatous cholecystitis is difficult to differentiate from gall bladder carcinoma
- E. Cholecystostomy is an option for treatment in some cases

Immediate laparoscopic cholecystectomy for acute cholecystitis within 24 hour of symptom onset is not superior to surgery 25-72 hour after symptoms begin. Laparoscopic cholecystectomy for acute cholecystitis therefore can be safely performed anytime within the golden 72 h.

Answer: A

73. Best test for diagnosis of gastrinoma is:

- A. 24 hour urine gastrin
- B. Acidity of the stomach
- C. fasting gastrin *

Zollinger-Ellison syndrome

Gastrin-secreting tumor (gastrinoma) of duodenum or pancreas. Associated with MEN1. Gastrin stimulates gastric acid secretion. Gastrin-secreting tumor (gastrinoma) of duodenum or pancreas. Associated with MEN1. Gastrin stimulates gastric acid secretion. Gastrin-secreting tumor (gastrinoma) of duodenum or pancreas. Associated with MEN1. Gastrin stimulates gastric acid secretion.

Gastrinoma: 60% duodenal and 40% pancreatic. Gastrinoma: 60% duodenal and 40% pancreatic. Gastrinoma: 60% duodenal and 40% pancreatic. Gastrinoma: 60% duodenal and 40% pancreatic.

Answer: C

74. All of the following is correct about Femoral hernia EXCEPT:

- A. More common in women
- B. The risk of strangulation is more as compared with inguinal hernia
- C. It present as a swelling below and medial to Pubic tubercle
- D. The sac may contain omentum
- E. Can be a cause of small bowel obstruction

Femoral hernia

Promotes tubercular ligament through femoral canal below and lateral to pubic tubercle. More common in females, but overall inguinal hernia are the most common. Most likely to present with strangulation or obstruction.

Answer: C

75. Regarding appendicitis, all of the following statements are true EXCEPT:

- A. The risk of developing the illness is greatest in childhood
- B. Mortality increases with age and is greatest in the elderly
- C. 20% of appendices are extraperitoneal in a retrocecal position
- D. Fecaliths are present in the majority of resected specimens
- E. CT has a diagnostic accuracy > 90%

Acute Appendicitis

INTRODUCTION: inflammation of the appendix caused by obstruction of the appendix lumen, leading to a closed loop with swollen inflammation that can lead to necrosis & perforation.

ETIOLOGY: Infection, ischemia, 70% of appendicitis. Infection, ischemia, 70% of appendicitis. Infection, ischemia, 70% of appendicitis. Infection, ischemia, 70% of appendicitis.



Answer: A

76. Regarding anal fissures, all of the following statements are true EXCEPT:

- A. 10% occur in the posterior midline (most common in posterior) → Primary (due to local trauma)
 B. Multiple fissures suggest a diagnosis of Crohn's Disease ✓ → Multiple fissures are common in Crohn's disease
 C. Fifty percent of acute fissures heal with the use of a bulking agent
 D. Sphincterotomy has a success rate of over 90%
 E. Sphincterotomy is associated with minor incontinence in 15% of patients

Answer: A

77. Regarding the anatomy of the anorectum all the following statements are correct EXCEPT:

- A. The anorectal angle is usually obtuse in females (more fat)
 B. The anal glands are mostly located in the intersphincteric space
 C. The anoderm is devoid of sweat glands (skin appendages)
 D. The dentate line is the true embryologic squamocolumnar junction
 E. The internal sphincter is involuntary

External = voluntary



Answer: D

78. A 45 year old male patient arrived to the Accident and Emergency department at Jordan University Hospital complaining of upper abdominal pain that radiate straight to the back with vomiting. He had unremarkable past medical illness; his vital signs were stable, examination of the abdomen showed only tenderness at the epigastrium. The most likely cause of his illness is:

- A. Perforated peptic ulcer disease
- B. Acute pyelonephritis
- C. Acute diverticulitis
- ☒ D. Early acute pancreatitis Trauma (I GET SMASHED)
- E. Viral hepatitis

Answer: D

79. A 35 year old male patient, admitted with abdominal pain, distension and excessive vomiting. He had previous history of appendectomy at the age of 18. The most likely cause for this illness is:

- A. Internal hernia
- B. Right colon cancer
- C. Volvulus
- D. Adhesions**
- E. Acute mesenteric ischaemia

Intestinal obstruction symptoms

Answer: D

80. All of the following parameters influence the risk of metastatic spread after resection of colorectal cancer, except

- A. Degree of differentiation
- B. Lymphovascular invasion
- C. Positive circumferential margin
- D. Lymph node positivity
- E. T stage

Answer: E

81. With regard to Crohn's disease, all of the following statements are true, EXCEPT:

- A. Bloody diarrhea is a frequent symptom
- B. The absence of granulomas does not exclude the diagnosis
- C. Intestinal obstruction is the commonest indication for surgery
- D. Malignancy occurs less frequently in comparison with ulcerative colitis
- E. Crypt abscess is not characteristic for Crohn's disease

Answer: A

82. A 40-year-old male with cecal mass diagnosed by colonoscopy, his father, paternal grandmother, and paternal uncle all developed colon cancer by their fifth decade. Mutation of which of the following genes is associated with this disease?

- A. APC
- B. BRCA1
- C. BRCA2
- D. hMSH2
- E. K-Ras

Lynch syndrome

Also called hereditary nonpolyposis colorectal cancer (HNPCC). Autosomal dominant mutation of mismatch repair genes (e.g., MLH1, MSH2) with subsequent microsatellite instability < 80% progress to CRC. Proximal colon is always involved. Associated with Endometrial, Ovarian, and Skin cancers. Merrill Lynch has CEOs.

Answer: D

83. The pathogenesis of benign type I gastric ulcers is predominantly which one of the following? **

- A. Hypersecretion of acid as a result of increased parietal cell mass
- B. Hypergastrinemia as a result of gastric stasis
- C. Antral stasis
- D. Defective gastric mucosal barrier
- E. Hyperpepsinobemia



Answer: D

84. The cell of origin of gastrointestinal stromal tumors (GIST) is: *****

- A. Goblet cell
- B. Submucosal fibroblast
- C. Interstitial cell of Cajal
- D. Smooth muscle cell
- E. Kulchitsky cell

Other neoplasia:

- Gastric lymphoma: NHL, 90% from H. pylori. Typically MALToma.
- GIST: from interstitial cells of Cajal. cKIT+ and CD34+. Can use imatinib for therapy. (mostly in stomach)
- Gastrinoma: 50% malignant and 50% multiple. Suspec (MEN). GERD+ulcers+diarrhea>ZES. Gastrinoma triangle (duodenum and head of pancreas). Gastrin >150 is high, >1000 is diagnostic. Secretin stimulation test: increase with secretin. Stomach acid testing: <2 pH.

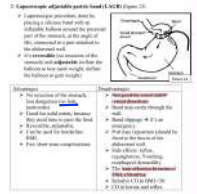
Bariatrics:

- ① pit. tumor
- ② hyperPTH
- ③ pancreatic neuroendocrine tumor: Gastrinoma

Answer: C

85. All of the following statements regarding laparoscopic adjustable gastric band (LAGB) are true; **except:**

- A. LAGB is not a good option for sweet eaters
- B. Long term excess weight loss after band surgery is comparable to sleeve gastrectomy** *Yes! Not sleeve is better*
- C. Reoperation rate in band surgery is more than other bariatric procedures *Yes! More than other bariatric procedures*
- D. Dumping syndrome is not a significant concern after LAGB
- E. Leak rate after LAGB is less than other procedures



Answer: B

86. All of the followings are variables of Child-Pugh classification for the assessment of patients with chronic liver disease, **EXCEPT: *****

- A. Encephalopathy
- B. Partial thromboplastin time (INR)**
- C. Total bilirubin
- D. Serum albumin
- E. Ascites

	1	2	3
Bilirubin (mg/dl)	<2.0	2-3	>3.0
INR	<1.7	1.7-2.3	>2.3
Albumin (mg/dl)	>3.5	2.8-3.5	<2.8
Encephalopathy	None	I-II	III-IV
Ascites	None	Slight	Tense

Answer: B

87. Concerning perforated peptic ulcer (PPU), all of the following statements are true **EXCEPT:**

- A. Perforation represents the most frequent indication for emergency surgery in patients with peptic ulcer disease. *But is the 2nd most common complication*
- B. In patients with perforated peptic ulcer, peritonitis resulting from acid exposure may present as abdominal "board-like rigidity".
- C. Only one third of patients with PPU have a previous history of or current known ulcer at time of diagnosis of perforation.
- D. Compared to open surgery, laparoscopic repair of PPU is associated with lower rates in mortality and in clinically relevant postoperative complications.** *Yes*
- E. In patients with PPU, sepsis is frequently present on arrival to the operating theatre and is the leading cause of death

Answer: D

88. Concerning management of upper gastrointestinal bleeding (UGIB), all of the following statements are true **EXCEPT:**

- A. There is a need to insert bilateral, 16-gauge (minimum), upper extremity peripheral intravenous lines.
- B. Once the maneuvers to resuscitate are underway, a nasogastric tube should be inserted, and then aspiration and lavage performed.
- C. If the nasogastric aspirate reveals clear gastric fluid and contains no bile, the gastrointestinal bleeding is emanating from below the ligament of Treitz.** *Yes*
- D. Upper gastrointestinal endoscopy should be performed initially after endotracheal intubation (if indicated), hemodynamic stabilization, and adequate monitoring.
- E. The indication for patients in patients with bleeding peptic ulcer includes failure of medical therapy and endoscopic hemostasis with persistent recurrent bleeding.

Answer: C

All patients [9][10][11][12]

- Ensure patient is NPO. ☐
- Insert two large-bore peripheral IVs (for possible fluid resuscitation and blood transfusion) and obtain blood samples for laboratory studies (e.g., CBC, type and screen). ☐
- Conduct a focused history and examination (including DRE). ☐
- Risk stratify to guide further management.
- Consider the following prior to hemostatic procedures (see "Empiric pharmacotherapeutic interventions for GI bleeding" for details):
 - Pretreatment (e.g., IV PPI) ☐
 - Anticoagulant reversal (e.g., for life-threatening bleeding)
 - Withholding antithrombotic agents



General Approach to the patient with Acute Upper GI Bleeding

- Guiding Principles
 - Restoration or maintenance of hemodynamic stability
 - Blood products if needed
 - Nasogastric lavage
 - Endoscopy with hemostasis if indicated
 - Antisecretory medications
 - Surgery if necessary

Amboss

89. Concerning lower gastrointestinal bleeding (LGIB), all of the following statements are true EXCEPT:

- A. If the bleeding is brisk and massive, upper GI bleeding and right sided colonic bleeding may present with bright red blood per rectum. ✓
- B. Resuscitation and initial assessment should be followed by localization of the bleeding site. ✓ *في البداية*
- C. Radionuclide scanning is associated with a very low false localization rate for the bleeding site. *بقياس الدم في القولون*
- D. In addition to its success in identifying the site of severe LGIB (in $\geq 70\%$ of patients), colonoscopy
- A. offers the opportunity for therapeutic intervention. ✓
- E. Selective mesenteric angiography can detect bleeding at a rate of more than 0.5 mL/min.

Answer: C

90. A 34-year-old man presents with fresh painless rectal bleeding, he is constipated, his weight is steady, and his appetite is normal, he has no family history of large bowel cancer. The most likely diagnosis is?

- A. Anal fissure. *ألم في الشرج*
- B. Haemorrhoids. *Internal*
- C. Diverticulosis. *% older people*
- D. Thrombosed piles.
- E. Colon cancer

Not CA & No family Hx *السرطان*

استسكار في القولون

66. All of the following statements about diverticular disease are true, EXCEPT: **

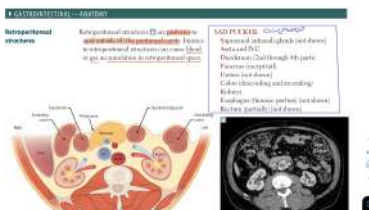
- A. It is more common in the West than in Asia and Africa.
- B. A low-fiber diet may predispose to development of diverticulosis.
- C. It involves sigmoid colon in more than 90% of patients.
- D. Sixty per cent develop diverticulitis sometime during their lifetime.
- E. It is the most common cause of massive lower gastrointestinal hemorrhage.

Answer: D

Answer: B

91. Which of the following structures is NOT retroperitoneal?

- A. Ascending colon.
- B. Seminal vesicles.
- C. Descending colon.
- D. Duodenum (D2).
- E. Ovaries.



Answer: E

92. The clinical picture of gallstone ileus includes all of the following EXCEPT:

- A. Air in the biliary tree. ✓
- B. Small bowel obstruction. ✓
- C. A stone at the terminal ileum. ✓
- D. Acholic stools.
- E. Bouts of cholangitis. ✓ *Recurrent*

CLINICAL FEATURES

Signs and symptoms:

1. Signs and symptoms of small bowel obstruction: RUQ pain, distention, vomiting and hyperolemia.

DIAGNOSIS

1. Clinical features
2. Abdominal x-ray shows:
 - I. Reveals radio opaque gall stone in the bowel (most commonly near ileocecal valve)
 - II. 40% of patient show AIR in the biliary system (air in the hepatic ducts)
 - III. Small bowel distention
 - IV. Air - fluid levels secondary to ileus
3. Upper GI series
4. Abdominal CT shows:
 - I. Reveals air in the biliary system
 - II. Features of small bowel obstruction
 - III. gall stone in the bowel.

TREATMENT

Surgical → enterotomy with removal of stone + interval delayed cholecystectomy.

Answer: D

93. Which of the following statements about achalasia is CORRECT?

- A. In most cases the cause is a parasitic infestation by *Trypanosoma cruzi*. (mostly Idiopathic)
- B. Chest pain and regurgitation are the usual symptoms.
- C. Distal-third esophageal adenocarcinomas may occur in as many as 20% of patients within 10 years of diagnosis. proximal 2/3 SCC
- D. Manometry demonstrates failure of LES relaxation on swallowing and absent or weak simultaneous contractions in the esophageal body after swallowing. ✓
- E. Endoscopic botulinum toxin injection of the LES, pneumatic dilatation, and esophagomyotomy provide highly effective curative therapy for achalasia. No, Low effective

Answer: D

94. The most useful circulating marker for patients with hepatocellular carcinoma is: **

- A. CA 15.3
- B. Levels of vitamin B 12
- C. CEA
- D. Alpha fetoprotein
- E. hCG

Investigation:
1. Tumor marker: increase in α feto protein.
2. Ultra Sound.
3. CT.
4. Angiogram.
5. tissue biopsy with CT / Ultra Sound / or laproscopic guidance : the most common way to diagnose HCC

Answer: D

95. The most common neuroendocrine tumor of the pancreas is:

- A. Insulinoma
- B. Glucagonoma
- C. Gastrinoma
- D. VIPoma
- E. Somatostatinoma

Endocrine neoplasia:
1. Insulinoma (MC) hypoglycemia, hypoglycemia, fatigue, low glucose, reactive with glucose.
2. Glucagonoma (rare) hyperglycemia, weight loss, diabetes, skin rash (necrolytic migratory erythema).
3. Gastrinoma (rare) hypergastrinemia, peptic ulcer, diarrhea, weight loss.
4. VIPoma (rare) watery diarrhea, hypokalemia, achlorhydria.
5. Somatostatinoma (rare) hypoglycemia, hypoglycemia, low insulin, low glucagon, low gastrin, low secretin, low CCK, hypobilirubinemia (low gastrin).

Pancreatic islet cell tumors

Insulinoma
Tumor of pancreatic β cells \rightarrow overproduction of insulin \rightarrow hypoglycemia
May see Whipple triad: low blood glucose, symptoms of hypoglycemia, relief of symptoms with glucose.
Treatment: surgical resection, diazoxide, octreotide.
Glucagonoma
Tumor of pancreatic α cells \rightarrow overproduction of glucagon
Presents with 6 D's: dermatitis (necrolytic migratory erythema), diabetes (hyperglycemia), DVT, declining weight, depression, diarrhea.
Treatment: surgical resection, octreotide.
Somatostatinoma
Tumor of pancreatic δ cells \rightarrow overproduction of somatostatin \rightarrow inhibition of secretion of glucagon, gastrin, secretin, CCK, and pancreatic enzymes.
May present with diabetes, hypoglycemia, constipation, gallstones, achlorhydria.
Treatment: surgical resection, somatostatin analogs (e.g. octreotide) for symptom control.

Answer: A

96. Krukenberg tumour results from which of the following methods of metastasis?

- A. Direct spread
- B. Transcoelomic spread
- C. Lymphatic spread
- D. Hematogenous spread
- E. Neurogenic spread

Gastric cancer
Most common gastric cancer is adenocarcinoma.
Early gastric cancer: localized, no lymph node metastasis.
Advanced gastric cancer: diffuse, lymph node metastasis.
Diffuse-type gastric cancer: associated with linitis plastica, diffuse infiltration of the stomach wall.
Intestinal-type gastric cancer: associated with polypoid nodules, ulceration, and lymph node metastasis.
Linitis plastica: diffuse infiltration of the stomach wall, leading to rigidity and loss of normal gastric shape.
Polypoid nodules: localized, nodular growth of cancer cells.

Transcoelomic spread contd...

- Krukenberg tumour
- Gastric carcinoma with secondary deposits in the ovary and pouch of Douglas
- Colonic carcinoma with secondary deposits in the ovary and pouch of Douglas

Answer: B

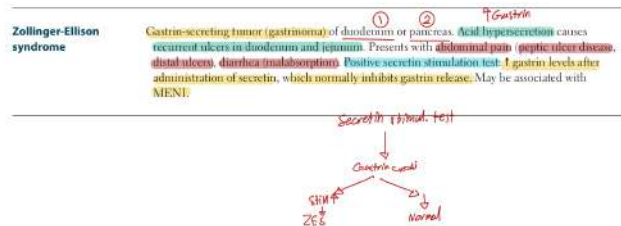
97. Absorption of the majority of nutrients takes place in which part of the gastrointestinal tract? (general?)

- A. Stomach
- B. Duodenum
- C. Jejunum
- D. Ileum
- E. Colon

Answer: C

98. Not a manifestation of Zollinger-Ellison syndrome:

- A. Migratory rash
B. Diarrhea
C. Multiple peptic ulcerations
D. Vomiting



Answer: A

99. The enzyme that's auto activated to its active form is: **

- A. Enterokinase
- B. CCK
- C. Chemotrypsin
- D. Gastrin
- E. Trypsin**

Answer: E

100. Wrong about Crohn's disease:

- A. Bloody diarrhea is a common presentation
- B. Most common indication of surgery is obstruction ✓
- C. The absence of granuloma doesn't exclude dx ✓
- D. Crypt abscesses is not pathognomonic ✓

Answer: A

101. Regarding Small intestinal tumors, all are true except:

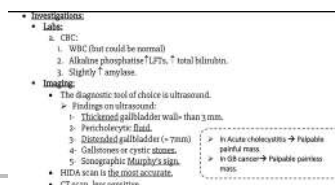
- A. Younger age group
- B. Malignant tumors have symptoms of pain and weight loss
- C. Benign lesion usually found incidentally
- D. Celiac disease predisposes for small intestinal lymphoma
- E. Ultrasound not useful in small intestinal tumors



Answer: A

102. Wrong about cholecystitis:

- A. U/S is the practical diagnostic test
- B. U/S can't differentiate between calculus and acalculus
- C. Ischemia is the cause of calculus cholecystitis (stones)**
- D. We use antibiotics in all patients
- E. Emphysematous cholecystitis needs emergent intervention



Answer: C

103. The best diagnostic test of achalasia is:

- A. EGD and biopsy
- B. Barium swallow
- C. Manometry**
- D. 24-h pH monitoring



Failure of LES to relax due to degeneration of inhibitory neurons (containing NO and VIP) in the myenteric (Auerbach) plexus of esophageal wall.
 Achalasia is idiopathic. Achalasia may arise from Chagas disease (Trypanosoma infection) or extramural malignancies (mass effect or paraneoplastic). Chagas disease can cause achalasia.
 Presents with progressive dysphagia to solids and liquids (vs obstruction—primarily solids).
 Associated with ↑ risk of esophageal cancer.

Manometry findings include uncoordinated or absent peristalsis with ↑ LES resting pressure. Barium swallow shows dilated esophagus with area of distal stenosis (bird's beak).
 Treatment: surgery, endoscopic procedures (eg, botulinum toxin injection).

Answer: C

104. A patient has difficulty in swallowing solid food, what is the diagnostic test?

- A. Barium swallow - first step**
- B. Manometry
- C. 24-h pH monitoring
- D. Egd with biopsy

↳ mass

بدون ألم أو قيء
 D عذري

Answer: A (also not sure)

105. All true about hepatocellular adenoma except:

- A. More associated with complications than hemangiomas
- B. Associated with the use of OCP
- C. The mass may regress with pregnancy (wrong, increases with steroid hormones)**
- D. holds the risk of malignant transformation
- E. size of adenoma is an important player in risk assessment



\$OCPs

Answer: C

106. All are true diverticula except:

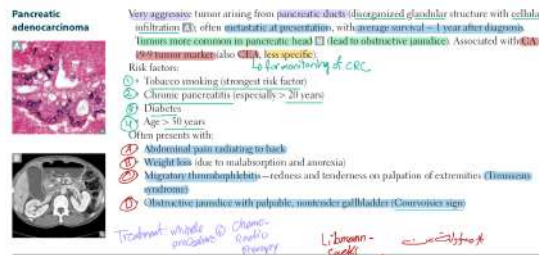
- A. Esophageal traction diverticulum
- B. Secondary duodenal diverticulum
- C. Solitary caecal diverticulum
- D. Meckel's diverticulum
- E. Zenker's diverticulum**



Answer: E

107. The highest environmental risk factor for pancreatic cancer is:

- A. Alcohol
- B. Smoking**
- C. Radon exposure
- D. Organophosphorus exposure
- E. High fat diet



Answer: B

108. Not an indicative symptom of pancreatic head cancer:

- A. Weight loss
- B. Clay-colored stool
- C. Dark urine
- D. Abdominal pain
- E. Diabetes insipidus (↓ADH), not a true DM

obstruction symptoms

Answer: E

109. A young man presented with a lump in the anal region for 2 weeks, continuous throbbing pain, not related to defecation, fever and chills, most likely dx is:

A. Perianal abscess : fever, pain, not related to defecation

- B. Fistula in ano
- C. Haemorrhoids
- D. Tumor
- E. Diverticulum



Acute phase (abscess) symptoms

- 1. acute pain in the anal region. Pain occurs with sitting or movement and is usually aggravated by defecation and even coughing or sneezing.
- 2. Swelling
- 3. purulent anal discharge
- 4. bleeding
- 5. General symptoms include malaise and pyrexia

Acute phase (abscess) Findings

- 1. Tender induration
- 2. Pus may be seen exuding from a crypt
- 3. Examination under anesthesia is not only justified but also indicated
- 4. Suprapubic abscess, a tender mass in the pelvis may be diagnosed by rectal or vaginal examination. Abdominal examination may reveal signs of peritoneal irritation

Answer: A

110. A patient with acute perianal fissure, all are accepted lines of treatment except:

- A. Lidocaine
- B. Topical calcium channel blocker
- C. Lateral internal sphincterotomy
- D. Glyceril nitrate
- E. Stool softener

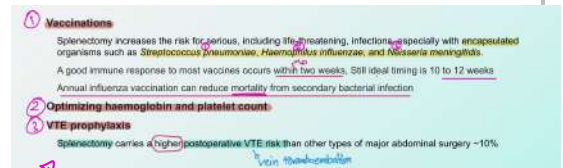
This procedure is indicated in patients with a high risk of fecal incontinence and who do not undergo surgery. BTK induces relaxation of the hypertonic anal sphincter by inhibiting the release of acetylcholine.



Answer: C

111. All are true about spleen except:

- A. It spans intercostals 9-10-11
- B. Palpation started in the right iliac fossa
- C. CML is an established cause of splenomegaly
- D. Most important risk post splenectomy is hemorrhage



Answer: D

112. What is the metabolic change associated with excessive vomiting? ****

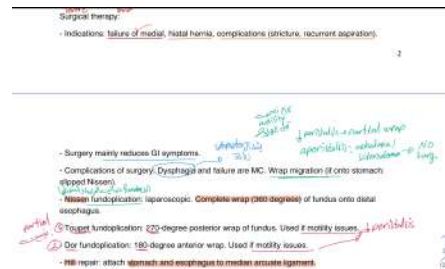
- A. Hypochloremic hypokalemic metabolic alkalosis
- B. Hyperchloremic hyperkalemic metabolic alkalosis
- C. Hyperchloremic hyperkalemic metabolic acidosis
- D. Hypochloremic hypokalemic metabolic acidosis

Cl⁻ ↓
K⁺ ↓
H⁺ ↓

Answer: A

113. One of the following can't be candidate for fundoplication

- A. Young patient
- B. Patient with paraesophageal hernia
- C. Patient with esophageal dysmotility**
- D. Patient with less pressure 8mmhg
- E. Patient with lateral sliding hernia



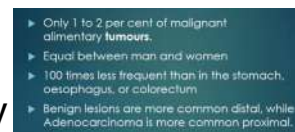
Surgical:

- Indications for surgery:
 1. Failure of medical treatment.
 2. Respiratory problems.
 3. Severe esophageal injury

Answer: C

114. Regarding small intestinal tumors what's wrong :

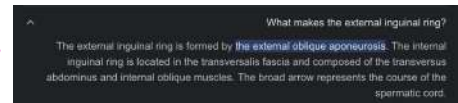
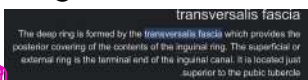
- A. Celiac disease is associated with SI lymphoma
- B. Crohn's is associated with SI adenocarcinoma
- C. Adenocarcinomas are more common to happen distally**
- D. Segmental resection with regional LN removal is best surgical choice for ileal and jejunal adenocarcinoma
- E. GIST size correlates with the risk of malignancy



Answer: C

115. All of the following are formed by external oblique and its aponeurosis except:

- A. Inguinal (poupart's) ligament
- B. External spermatic fascia
- C. Conjoint tendon**
- D. Superficial ring
- E. Deep ring



Answer: C&E

116. Tumor marker of pancreatic CA :

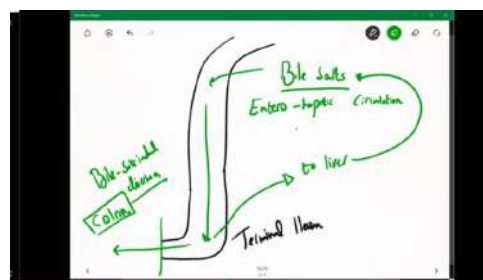
- A. CA 19-9**
- B. CA 15-3
- C. Alpha-FP
- D. hCG
- E. CEA



Answer: A

117. Bile salts are maximally absorbed in: **

- A. Duodenum
- B. Jejunum
- C. Ileum**
- D. Right colon
- E. Left colon



Answer: C

- **Complications**
 - **Intoxication**
 - Neurologic (due to toxic substances, especially when a injury is a physical assault)
 - Gastrointestinal (upper (only rarely the left))
 - Small bowel, colitis or stomach injury
 - Hemiparesis, sensory deficit
 - Hemiparesis, sensory deficit, (rare)
 - **Fracture**
 - Left tibia (common) when knee (with physical assault) - 4 mm (commonly) complication
 - Injury often above which is usually not recognized with left physical assault (because of pronatoratorion and 70° to 90°)
 - Abnormal position (abnormal, anterior or dorsal subluxation)


- Complications of splenic rupture**
 - Life-threatening hypovolemia and hemorrhagic shock
 - Flank bruise, injury (trauma)
- Complications of splenectomy**
 - Overwhelming post-splenectomy infection (OPSI)** *Especially* higher incidence of infection less "infection-in-splenic phagocytes" for details
 - Splenic abscess** *occurs* usually 1 week post splenectomy directly under the left lung base
 - Etiopathology:
 - Reported in ~2% of patients post abdominal surgery
 - No history of surgery in approx. 10% of patients
 - Etiology: overwhelming infection (e.g., due to *Escherichia coli*, *E. coli*, and *Clostridium spp*) following intra-abdominal perforation
 - Most commonly a complication of surgery (e.g., splenectomy, gastrectomy) or secondary to conditions such as diverticulitis, duodenal ulcers, or appendicitis
 - Thrombosis

~~Die~~

- ## Refractory GERD

Answer: A

Eukaryotic cell: aerobic respiration in eukaryotic mitochondria	
Prokaryotic membrane-less Normal cytoplasmic length Normal cytoplasmic width	→ Inner mitochondrial membrane
Prokaryotic, LEIS Normal mitochondrial length Poorly packaged inside	→ Outer mitochondrial membrane
Prokaryotic, LEIS Shortly packaged	→ Crista membranes Parallel to inner membrane Inner membrane folds (Mitochondrial Matrix)

- Peptic ulcer disease:**
- Peak incidence at **45-65 years of age**
 - Cause:** 80% is caused by *Helicobacter infection*: more in lower socioeconomic classes. Cause **damage to mucosa and increases gastric release** 12% from NSAIDs
 - Other Rf's: gastrinoma and ZES (can be familial), smoking alcohol, stress ulcers (usually multiple, superficial, in the fundus from ischemia. High ICP (Cushing), and burns (Curling)
- Types:**
- Type I: Gastric (20-30% of ulcers) lesser curvature towards antrum. Due to loss of protection
 - Blood type A.
- 
- Diagram illustrating the location of a peptic ulcer on the lesser curvature towards the antrum. The diagram shows the stomach with the ulcer located on the lesser curvature, closer to the antrum. Handwritten notes indicate 'Duodenal > stomach' and '1st part of small intestine'.

Answer: D

[illegible]

- Answer: D

(الرسالة)

- [illegible]

Answer: C

Mirizzi Syndrome:

- A large stone or multiple small ones cause pressure on GB individual or cystic duct > CBD obstruction → obstructive jaundice and/or fistula formation. The GB and CBD are both obstructed can cause biliary colic, jaundice, cholecystitis and/or cholangitis.
- Classification: Type I (hepatic duct obstruction), Type II (<1/3 of bile duct involved by tumor), Type III 1/3-2/3, and Type IV >2/3.
- Treatment: subtotal cholecystectomy leaving fibrotic GB with fistula closure (in types II-IV).

Cholelithiasis Cystic:

123. All of the following are risk factors for *C. difficile*, except :

- A. PPI
- ☒ B. Cigar smoking
- C. steroids ↓ Immunity
- D. Comorbidities
- E. Broad-spectrum antibiotics



Clostridioides difficile
Produces toxins A and B, which damage enterocytes. Both toxins lead to watery diarrhea → pseudomembranous colitis. Often 2° to antibiotic use, especially clindamycin, ampicillin, cephalosporins, fluoroquinolones; associated with PPIs.
Fulminant infection: toxic megacolon, ileus, shock.

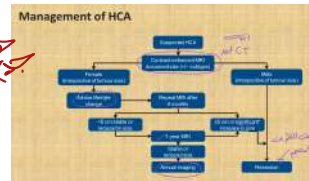
Difficile causes diarrhea.
Diagnosed by PCR or antigen detection of one or both toxins in stool.
Treatment: oral vancomycin or fidaxomicin.
For recurrent cases, consider repeating prior regimen or fecal microbiota transplant.

Answer: B

124. 32 y/o Female patient was evaluated was found to have hepatic adenoma > 7cm, she is on OCPs, what to do:

- ☒ A. Stop OCPs and reevaluate in six months
- B. Observe and follow up in the next month
- C. Excision of adenoma
- D. Start her on chemotherapy

TREATMENT *After life style changes for 6 months*
➤ If small → stop pills → it may regress
➤ If didn't regress → surgical resection is necessary.
➤ If large (>5 cm)/ bleeding/ painful/ rupture → surgical resection.
❖ Note: average age: 30-35 years of age.



Answer: A

125. All of the following are associated with increased formation of cholesterol gallstones except: *

- A. Exogenous estrogen
- ☒ B. High calorie diet
- C. Obesity
- ☒ D. Prolonged TPN
- E. Rapid weight loss

Black pigment stones (Pigment)
Risk factors:
• Chronic hemolysis (e.g., sickle cell disease, hereditary spherocytosis)
• Cirrhosis
• Total parenteral nutrition
• Advanced age
• **Polychlorinated biphenyls** (PCBs) - exposure to PCBs in cooking oil (e.g., margarine) - increased with use and application of PCBs - precipitation of bilirubin pigment and stones formation.



Cholesterol stones (Pigment)
Risk factors:
• Obesity
• Female sex
• Family history
• Rapid weight loss
• Prolonged TPN
• Exogenous estrogen
• Cirrhosis
• **Polychlorinated biphenyls** (PCBs) - exposure to PCBs in cooking oil (e.g., margarine) - increased with use and application of PCBs - precipitation of bilirubin pigment and stones formation.

Answer: B

126. Appendicitis is most difficult to be diagnosed in which one of the following:

- A. Infant 1 year old
- ☒ B. Pregnant woman (*Retro-Hepatic Pain*)
- C. Woman between 18-35
- D. Patient on anti-inflammatory drugs

Presentation:
- Classic: vague periumbilical pain with shifting to RLQ. Then, N/V, anorexia (possibly due to secondary ileus). Then tenderness. Then fever.
Physical:
- McBurney's sign: maximum tenderness 1/3 distance between right ASIS and umbilicus. Rovsing's sign: pressure on LLQ causes pain in RLQ. Psoas sign: RLQ pain on right hip extension. Obturator sign: RLQ pain on internal rotation of right hip. Patient can also have pain in pelvis (PR exam) or scrotal pain.
- Labs: mild leukocytosis, normal WBC in 10%. Urinalysis can have RBC and some WBC.
- Imaging: (AXR) normal, loss of psoas shadow. fecalith. decreased RLQ gas. US: shows inflamed appendix or pelvic fluid in children or thin adults (signs: thick wall >3mm, non-compressible >6mm outer diameter, pericecal fluid, appendicitis, hyperemia, reactive LN, target sign, etc.) CT Scan: dilated appendix or thick wall, pelvic fluid, fecalith, perforation, fat stranding.
- Alvarado score: MANTRELS (migrating pain, anorexia, nausea, RLQ tenderness 2 points, rebound tenderness, elevated temperature, leukocytosis 2 points, and shift to left). If <5, appendicitis is unlikely. If >5 it is highly likely.

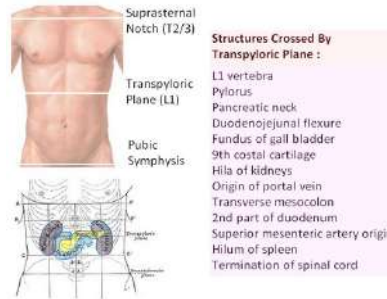
Appendicitis in Pregnancy:
- Incidence → 1/1500
- chief complain → RUQ pain
- Risk of Fetal loss → 4%
- Risk of preterm labor → 7%
** it's the most common procedure done during pregnancy
** the only Abnormal finding is → Left shift

Answer: B

127. All of the following are on the transpyloric plane except:

- A. Fundus of the gallbladder
- B. Termination of the spinal cord
- C. Duodeno-jejunal flexure
- D. Neck of the pancreas
- E. Origin of inferior mesenteric artery

superior



Answer: E

128. All are true regarding carcinoids except:

- A. Most common site is the appendix *Ileum*
- B. Ileal carcinoids are rarely multicentric *30-40%*
- C. Usually associated with other tumors of the GI of differing histology
- D. Tumor originates from enterochromaffin cells
- E. Ileal carcinoid follow a more malignant course (more mets) *slow growing & more mets*



Carcinoid tumours

- Originate in enterochromaffin cells (argaffin cells)
- 0.7 per 100 000
- These tumours may occur in the
 - foregut (including the duodenum),
 - midgut (including the jejunoleum),
 - the hind gut.
- Midgut carcinoids characteristically secrete large amounts of 5-hydroxytryptamine (5-HT, serotonin), whereas foregut carcinoids secrete small amounts of this peptide

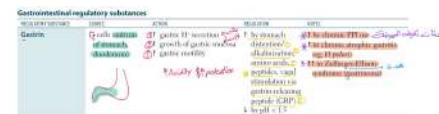
Answer: A

129. Regarding Gastrin all are true except:

- A. Secreted by G cells in antrum
- B. Decreased by PPI (PPI results in hypogastrenemia)
- C. Responsible for gastric phase of acid secretion
- D. Increased in Zollinger-Ellison
- E. When elevated causes gastric carcinoid *عام*



Carcinoid tumours are slow growing neuroendocrine tumours that arise from the gut. They are most commonly found in the appendix, ileum, and rectum. They are characterized by the presence of neuroendocrine cells that secrete hormones such as serotonin. They are often associated with other endocrine disorders such as diabetes and hypertension.



Answer: B

130. A patient u/w a GI surgery in which the Ileum was resected, one of the following is affected:

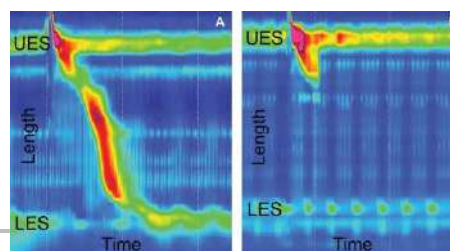
- A. Fe
- B. B12
- C. Calcium
- D. Intrinsic factor
- E. Tryptophan

كان امتحان B12

Answer: B

131. Manometry can show all except:

- A. Length of intraabdominal esophagus -length of LES
- B. Pressure in the esophagus
- C. Peristaltic contractions
- D. Degree of gastric reflux



Answer: D

132. Wrong about the physiology of pancreas:

- A. Acid in the duodenum and bile secretion stimulates pancreatic secretion ✓
- B. CCK stimulates enzyme release from the pancreas ✓
- C. pancreatic secretions neutralize the acid in duodenum ✓
- D. Amylase is secreted in its active form from the pancreas ✓
- E. Electrolyte and fluids in pancreatic juice are secreted from acinar cells

2. Exocrine cells (Acinar, centroacinar and ductal cells):
 - Acinar cells: Secrete enzymes (Trypsin, Chymotrypsin, Amylase, Lipase, Carboxypeptidase).
 - Centroacinar and ductal cells: Secrete water and electrolytes (Na⁺, K⁺, HCO₃⁻, Cl⁻) in response to Secretin stimulation.

The pancreatic enzymes (except the lipase and amylase) are secreted in an inactive form (zymogens) until they're activated by enterokinase in the duodenum.
 Secretin is secreted from the I cells in the duodenum; it is the most potent endogenous stimulant of bicarbonate secretion.

Answer: E

133. HCC (hepatocellular carcinoma) all are true except:

- A. It follows geographical distribution of HBV
- B. Increased by Alcohol
- C. Commonly metastasizes to lung, bone and peritoneum
- D. Percutaneous biopsy is done for suspected lesion if operative intervention will be done
- E. Main tumor marker is alpha feto protein

Investigation:
 1. Tumor marker: increase in alpha-fetoprotein.

1. Ultrasound
2. CT
3. Angiogram
4. Biopsy
5. Liver biopsy with CT (Ultrasound) or laparoscopic guidance (the most common way to diagnose HCC)

Also called (Hepatocellular carcinoma). Most common liver cancer in adults. Associated with HBV, HCV, alcoholism and other causes of cirrhosis including fatty liver disease, Wilson's disease, alpha-1 antitrypsin deficiency, and specific congenital defects in bile acid metabolism.
 Findings: weight loss, jaundice, ascites, hepatomegaly. May lead to gastrointestinal bleeding, portal hypertension, and liver failure.
 Diagnosis: ultrasound monitoring → alpha-fetoprotein (AFP) (confirmatory) biopsy if diagnosis is uncertain.

Answer: D

134. True about esophagus:

- A. Starts at the upper limit of thyroid cartilage
- B. Starts at c6
- C. 35 cm in length
- D. Infra abdominal part is not covered with peritoneum
- E. Pass the diaphragm at T8

Esophagus

Anatomy: The esophagus is a 25 cm long muscular tube (20 cm from the mouth) that begins at the pharynx (lower border of C6) and ends at the opening of the stomach (lesser curvature) in the stomach.



- 1. Upper 1/3 → skeletal muscle
- 2. Middle 1/3 → mixed (skeletal + smooth)
- 3. Lower 1/3 → smooth muscle
- 4. At the beginning of the esophagus (caused by the oesophageal sphincter) (LES)
- 5. Where the left main bronchus and aortic arch (T4)
- 6. At the lower diaphragm
- 7. It has sphincters:
 - 1. Upper esophageal sphincter (UES) - voluntary sphincter, caused by contraction of the muscular wall, its main function is to prevent food from entering the esophagus.
 - 2. Lower esophageal sphincter (LES) - involuntary sphincter, so it's an internal pressure, the main function is to prevent reflux.
- 8. Blood supply:
 - 1. Upper 1/3 → subclavian artery + anterior mediastinal arteries
 - 2. Middle 1/3 → esophageal arteries + bronchial arteries
 - 3. Lower 1/3 → left gastric artery + left inferior phrenic arteries

Answer: B

135. All are risk factors for stomach cancer except:

- A. High vegetables and citrus diet
- B. Poor socioeconomic status
- C. H pylori infection
- D. Adenomatous polyps
- E. Foods with high nitrates content

Answer: A

136. Wrong about diverticular disease:

- A. Barium is diagnostic in acute diverticulitis
- B. It's not premalignant ✓
- C. Surgery is indicated after the 2nd uncomplicated diverticulitis attack ✓
- D. 10-25% of patients will develop diverticulitis
- E. Diverticulosis is the most common cause of lower GI bleeding

Surgery indications:
 1. After first or any complicated diverticulitis attack
 2. After 2 or more episodes of uncomplicated
 (Management is always individualized according to patient, these are general guidelines)

ذكرت سابقاً

Answer: A

Diagnosis and imaging	Elective resection
<ul style="list-style-type: none"> • Colonoscopy: multiple slice scanners capable of variable plane reconstruction became the gold standard in determining the diagnosis and staging of diverticulosis • Colonic imaging (either colonoscopy or CT colonography) is still performed routinely following an episode of diverticulitis to rule out neoplasia • Timing and indication of Colonoscopy is questionable 	<ul style="list-style-type: none"> • Recurrent Diverticulitis ??? • The natural history of diverticulitis is such that one in six patients undergo surgery at presentation (40-50% are present, with a similar proportion requiring surgery), such that less than 5% have more than two episodes • Decision of surgery is based on an individualized basis • Diverticular fistula, diverticular stricture and disease refractory to conservative management

Diverticulitis
INTRODUCTION
Definition: Infection or perforation of a diverticulum.
Epidemiology: Occurs in 10-25% of patients with diverticuli (90% left sided, 10% right).

137. Wrong about zenker's diverticulum:

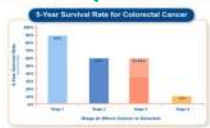
- A. Barium is not diagnostic and esophagoscopy is needed (wrong, we don't do endoscopy in fear of perforation)
- B. Almost all esophageal diverticula are acquired ✓
- C. Treatment is surgical resection ✓
- D. Herniation between the upper oblique and lower transverse muscles of the UES ✓
- E. It presents with difficulty initiating swallowing (transfer dysphagia) and halitosis ✓



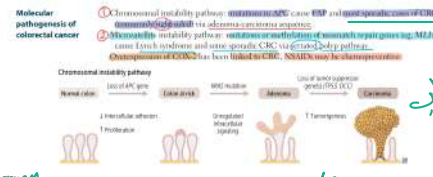
Answer: A

138. Wrong about colorectal cancer:

- A. Mutations in tumor suppressor genes or DNA repairing genes are observed in familial colorectal cancer and NOT the sporadic : Both Familial & sporadic
- B. Risk factors concerning life style include: obesity, smoking, high red meat intake
- C. The most common site of hematologic metastasis is the liver
- D. Surgical goal is to achieve a free margin locally, remove local LNs and establish safe anastomosis
- E. 5 years survival rate of patients diagnosed in the first stage is 90%



Pattern of spread:
 Direct: circumferentially bowel wall - abdomen
 Hematogenous: portal system to liver / systemic to the lung
 Lymphatic: transperitoneal and intraluminal
 Metastase always to the liver first via portal circulation but if it invades only the rectum it will bypass portal circulation



Answer: A

139. All true about pancreatic cysts except:

- A. Solid pseudopapillary occurs in middle aged men and is aggressive → young women
- B. Pancreatic pseudocysts are distinguished from other pancreatic cysts by lack of epithelial lining
- C. Ct scan is the investigation of choice for pancreatic pseudocysts ✓
- D. Pancreatic pseudocysts don't require treatment, in most cases they resolve on their own

Solid pseudopapillary tumor is a low-grade malignant neoplasm of the pancreas of papillary architecture with special histopathological (part-solid, part-cystic) features that typically affect young women.



Answer: A

140. Wrong about pancreatitis:

- A. Amylase levels does correlate with the severity of the infection → Ranson's criteria
- B. Biliary and alcoholic causes account for 90% of the cases ✓
- C. Pathophysiology includes cell injury that activates neutrophils which in turn activates zymogens of the pancreas by releasing proteolytic enzymes ✓
- D. The cardinal symptom is epigastric abdominal pain radiating to the back ✓
- E. The best test to see in a patient presenting 36 hrs from onset is lipase

Lab	Amelase is more sensitive, lipase is more specific.
Amelase	Glucose > 200 mg/dL, AST > 200 U/L, WBC > 10,000/mm ³ , LDH > 350 U/L, BUN > 2.0 mg/dL, Serum calcium < 8 mg/dL, Hematocrit > 6% decrease in 48 hrs.
Lipase	Glucose > 200 mg/dL, AST > 200 U/L, WBC > 10,000/mm ³ , LDH > 350 U/L, BUN > 2.0 mg/dL, Serum calcium < 8 mg/dL, Hematocrit > 6% decrease in 48 hrs.

Ranson's criteria (not specific or sensitive)	Mortality risk
Glucose > 200 mg/dL, AST > 200 U/L, WBC > 10,000/mm ³ , LDH > 350 U/L, BUN > 2.0 mg/dL, Serum calcium < 8 mg/dL, Hematocrit > 6% decrease in 48 hrs.	> 10% > 15% > 20% > 25% > 30% > 35% > 40% > 45% > 50%

Answer: A

141. Wrong about peritonitis:

- A. Is inflammation of peritoneum
- B. Most common surgical cause is secondary bacterial contamination
- C. Can be septic or aseptic
- D. Primary peritonitis is more common in adults than in children
- E. TB peritonitis can be with or without ascitis

Primary peritonitis	Secondary peritonitis
Caused by: - Polymicrobial - Perforated appendix - Perforated diverticulum - Usually polymicrobial	Caused by: - Secondary to the entry of bacteria or viruses into the peritoneum from the gastrointestinal or urinary tract - Polymicrobial - Usually polymicrobial

Answer: D

↳ To rule out A. fib → Acute mesenteric ischemia

- Other intestinal disorders**
- Acute mesenteric ischemia**
- Critical blockage of intestinal blood flow** (often embolic occlusion of SMA) - small bowel necrosis [] - abdominal pain out of proportion to physical findings. **12-lead ECG and serum troponin**
- Risk factors:** atrial fibrillation, peripheral arterial disease, recent MI, CHF, embolism, cholelithiasis
- Nonocclusive mesenteric ischemia**
- Causes - 20% of cases
 - Most commonly occurs in critically ill patients with low cardiac output
 - Risk factors include hypotension and the use of vasopressors, digitals, ergotamines, or cocaine.

Peutz-Jeghers syndrome ①
Autosomal dominant syndrome featuring numerous hamartomatous polyps throughout GI tract, along with hyperpigmented macules on mouth, lips, hands, genitalia. Associated with ↑ risk of breast and GI cancers (eg. colorectal, stomach, small bowel, pancreatic). ②

This diagram illustrates the anatomical relationship between the gallbladder, biliary ducts, pancreas, and major blood vessels. The gallbladder is shown as a green sac-like structure. The bile duct is depicted as a green tube that runs alongside the inferior vena cava (blue) and the aorta (red). The pancreas is shown as a yellow, elongated organ. The duodenum is shown as a pink, C-shaped structure that surrounds the head of the pancreas. The spleen is shown as a dark red, bean-shaped organ. The diagram highlights the proximity of the gallbladder and biliary ducts to the major blood vessels and the pancreas, which is crucial for understanding the potential complications of gallbladder disease.

[illegible]

➤ **Physiology:** esophagus is a connection canal through which the food pass, it transfers food by **peristalsis**.

- Types of peristalsis:
 - Primary: Esophageal peristalsis** accompanying **swallowing**.
 - Secondary:** initiated by the **esophageal musculature** without the pharyngeal impulse to dislodge esophagus of any substance left behind Primary peristalsis.
- Phases of swallowing:
 - Oral phase** (3 sec) voluntary
 - Pharyngeal phase:** (1 Sec) involuntary
 - Esophageal phase:** 8-20 sec. involuntary
- Anti reflux mechanism:
 - Lower esophageal sphincter (LES)
 - Crura of diaphragm
 - Cardiac angle (angle of His)
 - Peristaltic movement
 - Celium

Answer: B

147. Rectal prolapse, all are true except:

- A. More common in elderly
- B. More common in females *نادر*
- C. Can be associated with constipation or incontinence
- D. Abdominal operation is associated with higher recurrence rate
- E. Endoscopy should be done for patients

Diagnostics

Definitive diagnosis

Rectal prolapse is primarily a clinical diagnosis.

When **defecography** is used to distinguish full thickness rectal prolapse from mucosal prolapse when the diagnosis is not obvious from clinical examination alone.

Additional tests

- **Proctoscopy** and/or colonoscopy should be performed prior to any surgical therapy.
- If a rectal ulcer is present, biopsy of the rectal ulcer.
- If fecal incontinence is present, anal sphincter manometry.
- If pelvic floor weakness is suspected, dynamic pelvic floor MRI.
- A **sweat chloride test** should be performed among children with rectal prolapse to rule out cystic fibrosis.

Answer: E

Final 2012

148. Diagnosis of acute diverticulitis (to exclude it):

- A. U/s
- B. Ct
- C. Colonoscopy
- D. Barium

Answer: B

149. Wrong about anal fissures:

- A. In males, it's most commonly *posterior* median *مكرر سابقاً*
- B. Multiple fissures are associated with crohn's disease ✓
- C. Primary fissures underlying pathophysiology is increased internal sphincteric tone ✓
- D. It's equally prevalent in males and females ✓

Answer: A

150. Not a risk factor in gastric cancer:

- A. Female sex *مكرر سابقاً*
- B. Smoking
- C. H. Pylori
- D. You know the rest

Answer: A

151. Most common cause of death in acute pancreatitis:

- A. Hemorrhage
- B. Hypovolemia
- C. Pseudocyst rupture
- D. Infection

عنايت عالية أهم خطوة في العلاج IV fluids

Answer: B

152. Not an indication for surgery in UC:

- A. Toxic mega colon
- B. Massive gl hemorrhage
- C. Refractory to medical
- ☒ D. Responsive to medical but persisted more than 7 years.



Answer: D

153. Most common extraintestinal in crohn's:

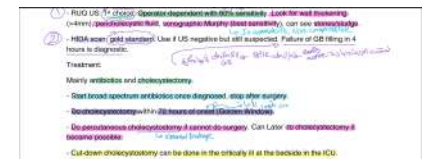
- A. Ankylosing spondylitis
- ☒ B. Arthritis *
- C. Erythema nodosum
- D. Iritis

arthritis, or inflammation of the joints, is the most common extraintestinal complication of IBD.

Answer: B (not sure)

154. Wrong about acute cholecystitis:

- ☒ A. Open cholecystectomy is the 1st line of treatment
- B. Physical examination shows positive murphy's sign ✓
- C. U/S is the diagnostic tool of choice ✓
- D. IV antibiotics are given to all patients ✓



Definitive management (FISG4B2B24)
The initial severity and duration of antibiotic therapy depend on severity grading of acute cholecystitis, patient's individual surgical risk, and presence of complications.

- Laparoscopic cholecystectomy**
 - Preferred approach if expertise is available.
 - Perform as soon as possible, unless surgical and medical risks outweigh the benefits of urgent surgery.
 - Conversion to open cholecystectomy may be required depending on intraoperative findings [19].

Answer: A

155. Regarding esophageal cancer, which is wrong:

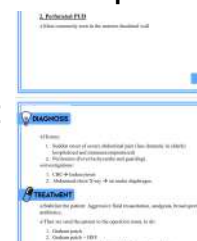
- A. Around 80% present with dysphagia
- B. Dysphagia causes weight loss
- C. All adult pts with dysphasia should undergo esophugscopy to rule out malignancy
- ☒ D. Screening for esophageal cancer in jordan, is not cost effective

Symptoms	Number Pts (%)
Dysphagia	259 (83)
Weight loss	179 (58)
Abdominal pain	27 (9)
Chest pain	21 (7)
GI bleed	20 (6.5)
GERD	17 (5.5)
Nausea/vomiting	16 (5)
Hiccups	6 (2)
Fatigue	5 (1)
Back pain	4 (1)
Neck pain or mass	3 (1)
Early satiety	2 (<1)
Hiccups	2 (<1)
Hemoptysis	1 (<1)
Borrett's surveillance	1 (1)

Answer: D (maybe)

156. PUD perforation, which is Wrong:

- A. Mostly in the ant. Wall of duodenum ✓
- B. Massively bleeding ulcers are most common to be on the posterior wall of the duodenum ✓ *Rec. of Gastrointestinal Art.*
- ☒ C. 20% present with pneumoperitoneum
- D. Omental patching is an effective surgical treatment



Answer: C

157. Regarding FAP, which is wrong:

- A. Polyps are adenomatous
- B. All patient will have cancer at some point
- C. Autosomal dominant, APC gene on chromosome five mutation
- ☒ D. Clinically present in teens
- E. Mostly the surgery is, colectomy with ileorectalanastomosis

- Intestinal manifestations**
 - Polyps develop in the second/third decade of life but patients are usually asymptomatic until symptoms of colon cancer develop.
 - Lifetime colorectal cancer risk: 100% (onset typically occurs at 35–40 years of age) [9]
 - Increased risk of gastric and pancreatic cancer [10]

Answer: D

158. About black pigmented gall bladder stones, which is **WRONG**:

- A. Associated with hemolysis
- B. Associated with cirrhosis
- ☒ C. Associated with infected bile : *Brown*
- D. Contain mainly calcium carbonate and less calcium palmitate



Answer: C

159. Obstructive jaundice, all are true except:

- A. High Bilirubin in urine
- ☒ B. High urobilinogen in urine (remember: urobilinogen is TRANSPARENT)
- C. Normal AST
- D. High ALP

↑ urobilin

Answer: B

160. Not a stimuli for visceral pain:

- A. Infarction
- B. Inflammation
- ☒ C. Heat
- D. Stretch
- E. Distention

Heat

Answer: C

161. A 60 y/o female patient with known history of HTN and A.fib presented to the ED with acute generalized abdominal pain that isn't backed up by the physical findings on her abdomen, what would be top on your Ddx list?

- ☒ A. Acute embolic mesenteric Ischemia (emboli are migrating thrombi)
- B. Chronic mesenteric Ischemia
- C. Acute thrombotic mesenteric Ischemia
- D. Acute pancreatitis

Answer: A

Miscellaneous +6TH YEAR

162. Patient with obstructive jaundice, initial diagnostic step:

- ☒ A. U/S
- B. ERCP → *Definitive*
- C. MRCP
- D. PTC

Answer: A

163. All of the following are causes of conjugated hyperbilirubinemia except:

- A. Hemolysis *indirect*
- B. Obstructive CBD stone
- C. Biliary stricture
- D. Pancreatic head tumor

Answer: A

164. Wrong about ERCP:

- A. 1/3 of patients get pancreatitis
- B. It's a diagnostic and therapeutic procedure ✓
- C. Could be used to perform stone extractions ✓
- D. Can be used for biliary stenting ✓

Answer: A (only 3-10%)

165. Crohn's disease associated fistula all are true except:

- A. colovesical is associated with acute UTI caused by single organism *polyorganisms*
- B. colovesical is associated with pneumaturia ✓
- C. colointestinal may be asymptomatic ✓
- D. colovaginal associated with feces and flatus through vagina ✓
- E. colocutaneous associated with secretion to the skin ✓

(When the mode of spread is by blood → single)

Answer: A

166. Hydatid cyst indication for surgery include all of the following except: **

- A. >10cm
- B. Infected cyst
- C. Calcified cyst
- D. Open to biliary tree with no symptoms
- E. Open to biliary tree with symptoms

Indications of medical treatment:

- Inoperable or unfit patient.
- Patients with multiple cysts in more than 2 organs.
- Multiple small liver cysts or cysts deep in the liver.
- Peritoneal cyst.
- Patients following incomplete surgery or relapses.
- Prevention of secondary echinococcal infection following percutaneous rupture or aspiration of the cyst.

Indications: *if surgery*

1. Superficial cyst with risk of rupture
2. Large cyst >10 cm with many daughter cysts
3. Cystobiliary communication
4. Mass effect on vital organs
5. Infected cyst
6. Any extrahepatic localized cyst

Answer: C

167. All are true about GIT lymphoma except:

- A. Gastric lymphoma is the most common extra nodal site
- B. Burkitt's presentation is usually bleeding from proximal jejunum
- C. H.pylori associated with MALT ✓
- D. Celiac associated with T lymphoma ✓
- E. Surgical excision of stomach is reserved for those with perforation and bleeding

Answer: B

168. All increase gastrin secretion except:

- A. Antrectomy
- B. Vagotomy
- C. Z-E syndrome
- D. Atrophic gastritis
- E. Achlorhydria

GASTROINTESTINAL—PHYSIOLOGY				
Gastrointestinal regulatory substances				
REGULATORY SUBSTANCE	SOURCE	ACTION	REGULATION	NOTES
Gastrin	G cells (antrum of stomach, duodenum)	<ul style="list-style-type: none"> ↑ gastric H⁺ secretion ↑ growth of gastric mucosa ↑ gastric motility 	<ul style="list-style-type: none"> ↓ by stomach distention/alkalinization ↑ by amino acids, peptides, vagal stimulation via gastrin-releasing peptide (GRP) ↓ by pH < 1.5 	<ul style="list-style-type: none"> ↑ by chronic PPI use ↑ in chronic atrophic gastritis (eg. H. pylori) ↑ in Zollinger-Ellison syndrome (gastrinoma)

Answer: A

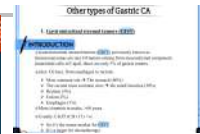
169. About GIST, which of the following is wrong:

- A. Stomach is most common site
- B. Most common site is the antrum** *fundus*
- C. Better prognosis in stomach than small intestine
- D. Surgical resection when size >2 cm
- E. Large size tumor and high proliferation index have relative risk of malignancy



Gastrointestinal Stromal Tumours (GIST)

- Arise from Connective tissue cells
- Most common mesenchymal tumour of the GI Tract
- Benign or malignant. Size increase risk of malignant potential.
- Usually stomach followed by small bowel (jejunum > ileum)
- 50-70 years of age.



Answer: B (fundus)

170. The hepatoduodenal ligament contain the common bile duct (CBD), hepatic artery and the portal vein in which of the following arrangement:**

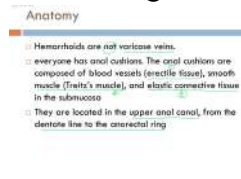
- A. Artery right of CBD and vein posterior.
- B. Artery right of vein and CBD posterior.
- C. CBD right of artery and vein posterior.**
- D. CBD right of vein and artery posterior.
- E. Portal vein right of artery and CBD posterior.



Answer: C

171. All of the following statements about hemorrhoids are true, EXCEPT: **

- A. Hemorrhoids are specialized "cushions" present in everyone that aid continence.
- B. External hemorrhoids are covered by skin whereas internal hemorrhoids are covered by mucosa.
- C. Pain is the most common presentation.**
- D. Hemorrhoidectomy is reserved for third and fourth degree hemorrhoids.
- E. Peak incidence is in the 50-60 years of age.

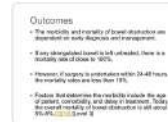


PREVALENCE
prevalence rate of 4.4%
peak between age 45 and 65 years
Hemorrhoidectomies are performed 1.3 times more commonly in males than in females

Answer: C

172. Regarding abdominal wall hernias:

- A. Are 2nd to adhesions as a cause of strangulated intestinal obstruction**
- B. 20% of inguinal hernias are indirect
- C. In women inguinal hernias are less common than femoral hernias
- D. The mortality associated with bowel strangulation is over 10%**
- E. Trial reduction of pediatric inguinal hernias is not recommended



Answer: D

173. Regarding the pathology of ulcerative colitis, one is TRUE:

- A. Is characterized by mesenteric creeping
- B. The rectum is rarely involved
- C. 10% patients have terminal ileal disease**
- D. Enterocutaneous or intestinal fistulae are common
- E. Pseudopolyps are premalignant

Answer: C

174. Familial adenomatous polyposis, one is TRUE:

- A. Is inherited as an autosomal recessive condition ✗
- B. Is characterized by polyp formation in late adulthood *early*
- C. Is best treated by total proctocolectomy and ileal pouch construction
- D. Is due to a mutation on the short arm of chromosome 15 5
- E. Malignant transformation occurs in 75% of untreated patients *100%*

Answer: C

175. Regarding colonic polyps, one is TRUE:

- A. Hyperplastic polyps are usually large sessile polyps (>2 cm) *2 > 2 cm*
- B. Adenomatous polyps are most commonly sessile *pedunculated*
- C. Villous adenomas are more common than tubular adenomas *normal mucosa*
- D. Genetic mutations can result in epithelial metaplasia *Dysplasia*
- E. Almost all carcinomas arise in pre-existing adenomatous polyps

What does it mean when a polyp is sessile?
Sessile polyps grow without the narrow stalk and lie flat against the wall of the colon. These are also known as flat polyps. "Sessile" means that they don't have a narrow stalk. It's possible for a large, protruding polyp to have a sessile base.

Familial Adenomatous Polyposis (FAP)
A hereditary condition characterized by the development of numerous adenomatous polyps in the colon and rectum. These polyps are precancerous and can lead to colorectal cancer if not treated. FAP is caused by a mutation in the APC gene on chromosome 5.

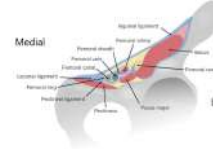
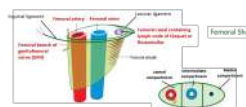
Hyperplastic Colonic Polyps (Adenomas)
These are the most common type of polyp found in the colon. They are usually small (less than 1 cm) and have a stalk. Most hyperplastic polyps are benign, but some can progress to adenomas and eventually to colorectal cancer.

Answer: E

176. Regarding the femoral canal, all of the following statements are true EXCEPT:

- A. Lies medial to the femoral vein
- B. Has the inguinal ligament as its anterior border
- C. Has the lacunar ligament as its lateral border *medial*
- D. Has the pectineal ligament as its posterior border
- E. Contains the lymph node of Cloquet

Femoral hernia
Protrudes below inguinal ligament through femoral canal higher and lateral to inguinal ligament. More common in females but perforated inguinal hernias are the most common abdominal hernias in males.



Answer: C

177. Which of the following organisms is not a gastrointestinal source of peritonitis?

- A. Bacteroids
- B. Chlamydia
- C. Escherichia coli
- D. Clostridium
- E. Streptococci

GIT Microflora

- Bacteria
- Fungi
- Protozoa
- Viruses
- Archaea
- Eukaryotes
- Bacteria
- Fungi
- Protozoa
- Viruses
- Archaea
- Eukaryotes

Answer: they chose B but I believe it's C

178. All of the followings are true about bariatric operations, EXCEPT:

- A. Laparoscopic gastric bypass (LGBP) is a good option for sweet eater patients. ✓
- B. The main factor for weight reduction in standard LGBP is restrictive not malabsorptive. *both*
- C. The ideal procedure for pediatric age group is laparoscopic adjustable gastric band (LAGB). ✓
- D. Laparoscopic sleeve gastrectomy (LSG) is associated with decrease in hunger hormone. ✓
- E. Laparoscopic gastric plication is associated with high failure rate. ✓

Answer: B

179. A 60-year-old TPN-dependent male with short gut syndrome and diarrhea presents with non-healing leg wound. Which trace element he may need supplementation with?

- A. Manganese.
- B. Fluorine.
- C. Selenium.
- D. Copper.
- ☒ E. Zinc.



Answer: E

180. With regard to gall bladder stones (GBS), all of the following statements are true, EXCEPT:

- A. Pure cholesterol stones are usually solitary
- B. Black pigmented stones occurs mostly in the gall bladder
- ☒ C. The main component of brown pigmented stones is calcium bilirubinate
- D. Black pigmented stones is associated with hemolysis
- E. Brown pigmented stones is related to biliary tract infection



Answer: C

181. Metastatic disease to the stomach can occur with the following tumors. Which one is the most common?

- A. Melanoma
- ☒ B. Breast cancer
- C. Testicular cancer
- D. Colon cancer
- E. Prostate cancer



Stomach

Answer: B

182. Which of the following environmental risk factors contributes most to the pathogenesis of pancreatic cancer?

- A. Alcohol use
- B. Chronic steroid use
- C. High dietary fat intake
- D. Radon exposure
- ☒ E. Tobacco use



Answer: E

183. year old male patient presented to the accident and emergency department with painful groin swelling that was reducible before. Exam showed stable vital signs. His abdominal exam was unremarkable apart from a tender swelling at the right groin and absent cough impulse. The most appropriate next step in his management is:

- A. CT scan to look for the cause of this swelling
- B. Start IV antibiotics and Observe in surgical ward for 8 hours
- C. Apply a truss gently and observe
- D. Arrange for Ultrasound scan
- ☒ E. Arrange for exploration

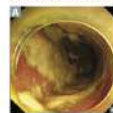
Hx & Px Inguinal hernia خلع على

Answer: E

184. All of the following are risk factors for developing clostridium difficile colitis, except.

- A. Prolonged intravenous antibiotics
- ☒ B. Contraceptive pills *Hepatic adenoma*
- C. Mal-nutrition
- D. Steroids
- E. Proton pump inhibitor

Clostridioides difficile



Produces toxins A and B, which damage enterocytes. Both toxins lead to watery diarrhea → pseudomembranous colitis. Often 2° to antibiotic use, especially clindamycin, ampicillin, cephalosporins, fluoroquinolones, associated with PPIs. Fulminant infection: toxic megacolon, ileus, shock.

Difficile causes diarrhea. Diagnosed by PCR or antigen detection of one or both toxins in stool. Treatment: oral vancomycin or fidaxomicin. For recurrent cases, consider repeating prior regimen or fecal microbiota transplant.

Answer: B

185. All of the following are indications for postoperative chemotherapy after anterior resection for upper rectal adenocarcinoma EXCEPT:

- A. Node positive
- B. Lympho-vascular invasion
- C. T4 stage
- ☒ D. Tumour size above 3 cm
- E. Bi-lobar liver metastasis

بعد الجراحة الهدف من metastasis

Answer: D

A 43-year-old man is admitted following an RTA, he is found in respiratory distress, he is intubated and ambubag ventilated, the anesthetist tells you that he exercises a lot of pressure to ventilate the patient, there is reduced air entry to the left side of the chest and the trachea is shifted to the right side. Which of the following is the most appropriate management option in this patient?

- A. A chest X-ray.
- B. A CT thorax.
- ☒ C. Needle decompression of the left side of the chest.
- D. Insert a chest drain.
- E. Mechanical ventilation with PEEP.

pneumothorax

BTW, THIS IS NOT GI :D

Answer: C

186. The best medical treatment for hydatid disease is:

- A. Mebendazole
- B. Albendazole**
- C. Ketoconazole
- D. Metronidazole
- E. Steroids

TREATMENT

1. **Chemotherapy:**

- Alone is not useful, so it should be combined with other modalities of treatment.
- Albendazole (ABZ) and ABZ sulfoxide (the active metabolite) are the most effective adjuvant chemotherapy.

Answer: B

187. All of the following are associated with increased likelihood of surgical site of infection after major elective surgery, EXCEPT:

- A. Age over 70 years.
- B. Chronic malnutrition.
- C. Controlled diabetes mellitus.**
- D. Long-term steroid use.
- E. Infection at a remote body site.

SSI – Risk Factors
Patient Characteristics

- Age
- Diabetes
 - HbA_{1c} and SSI
 - Glucose > 200 mg/dL postoperative period (<48 hours)
- Nicotine use: delays primary wound healing
- Steroid use: controversial
- Malnutrition: no epidemiological association
- Obesity: 20% over ideal body weight
- Prolonged preoperative stay: surrogate of the severity of illness and comorbid conditions
- Preoperative nares colonization with *Staphylococcus aureus*: significant association
- Perioperative transfusion: controversial
- Coexistent infections at a remote body site
- Altered immune response

Answer: C

188. Regarding sigmoid volvulus, all of the following statements are true EXCEPT:

- A. Sigmoid colon is the most common site of volvulus in the gastrointestinal tract. ✓
- B. Suggested pathogenesis includes a redundant sigmoid colon that has a narrow mesenteric attachment and the presence of colonic dysmotility.
- C. Abdominal CT can be done to establish the diagnosis of sigmoid volvulus and to rule out other causes of abdominal pain and intestinal obstruction.
- D. Immediate laparotomy is done in patients with signs and symptoms suggestive of bowel necrosis.
- E. Surgery is not recommended after successful endoscopic detorsion.**



Diagnosis

- Sigmoidoscopy or radiographic series
- Colocolic fistula: distended loop of sigmoid colon, closed sigmoid loop with haustra, air in loop during distal sigmoidoscopy
- CT scan: sigmoidoscopy (if sigmoidoscopy not done, then CT is confirmatory. Sigmoid volvulus is pathognomonic when a sigmoid colon is seen in cross-section)

Treatment

- Initial: non-operative
- If there is no strangulation: sigmoidoscopic reduction is successful in approx. 80% of cases (more and less than 50% success rate, approx. 40% to 70%)
- Indications of surgery (recurrence of sigmoid volvulus is suggested):
 - Unsuccessful reduction
 - Bowel perforation
 - Bowel necrosis
 - Bowel obstruction

More patients undergo colectomy after successful non-operative reduction due to high recurrence rate (~80%)

Answer: E

189. All of the following statements are true regarding colonic polyp EXCEPT:

- A. Hyperplastic polyps are the most common non-neoplastic polyps in the colon.
- B. Villous histology, increasing polyp size, and high-grade dysplasia are risk factors for focal cancer within an adenoma.
- C. Distal small hyperplastic polyps rarely, if ever, develop into colorectal cancers.
- D. Hamartomatous polyps are polyps that are made up of tissue elements normally found at that site, but which are growing in a disorganized mass.
- E. Aspirin increases the incidence of metachronous adenomas and probably cancer.**

Aspirin and Colorectal Cancer

- Aspirin use is associated with a reduced risk of colorectal cancer
- The risk reduction is dose-dependent and is more pronounced with higher doses of aspirin
- The mechanism of action is unclear but may involve inhibition of cyclooxygenase and subsequent reduction in prostaglandin synthesis

Answer: E

190. A 34 years old lady presented with RUQ pain. She has been on oral contraceptive pills for 10 years. CT abdomen shows a 4 cm hypervascular lesion in the right lobe of the liver. The most likely diagnosis is:

- A. Hepatocellular carcinoma
- B. Focal nodular hyperplasia
- C. Cholangiocarcinoma
- D. Adenoma**
- E. Metastatic breast carcinoma

Hepatic adenoma

Rare, benign tumor, often related to oral contraceptive or anabolic steroid use; may regress spontaneously or rupture (abdominal pain and shock). Intercurrent bleeding during pregnancy

Answer: D

★★

-
- A diagram illustrating the anatomy of the inguinal canal. It shows the path of the canal from the deep inguinal ring to the superficial inguinal ring. Key landmarks labeled include the Linea alba, Deep inguinal ring, Inguinal canal, Superficial inguinal ring, Pubic tubercle, and Pubic crest. A dashed line indicates the midline of the canal, and a measurement of 1.2 cm is shown between the deep and superficial rings. A blue arrow points to the midline of the canal.

The deep or internal ring is located **just above the midpoint of the inguinal ligament and lateral to the epigastric vessels**. The deep ring is formed by the transversalis fascia which provides the posterior covering of the contents of the inguinal ring.

Clean surgery
(no perforation)

- 1st generation (cefazolin, cephalexin) — gram \oplus cocci, *Proteus mirabilis*, *E. coli*, *Klebsiella pneumoniae*. Cefazolin used prior to surgery to prevent *S. aureus* wound infections.

بلانا نقل ان surgical complication عن طريق

Cefazoline ← S. aureus wound & complications

Chetochloa perfringens is a saprophytic microorganism, but can be a good invasive agent. A representative of the *Chetochloa* phylum is not usually able to cause infection before

ISC
~~hier~~

[illegible]

- 1. **D diffuse type** (10%)
 - Arise from lamina propria (**mucosal glands**)
 - **More common in proximal parts of the stomach** (Especially the **Cardia**), but could be found anywhere in the stomach.
 - Associated with **excessive growth patterns with rapid cellular turnover** **apoptosis** of the entire stomach is involved, this results in thickening of the stomach "leaky glands"
 - Less association with the known risk factors.
 - Occurs in **younger age groups**
 - **More prognostic than intestinal type**
 - **Metastatic more common in this type**, especially by **lymphatics**.
- 2. **Intestinal type** (70%)
 - Arise from **gastric mucosa**.
 - In **distal parts of the stomach**.
 - Associated with the **Helicobacter** and other environmental risk factors.
 - Well formed glandular structure.
 - Spreads by **invasion and seeding**.

- Flexible upper endoscopy
- Blood test
- Double-contrast barium swallow
- Endoscopic ultrasound scan (EUS)
- CT (computed tomography)
- Diagnostic laparoscopy

فتح البطن الاستقصائي
(Exploratory laparotomy)

هذا إجراء من جراح البطن الاستقصائي فيه فحص جدار البطن
بمجرد فتحه لفحص جدار البطن
بمجرد فتحه لفحص جدار البطن
بمجرد فتحه لفحص جدار البطن

Exploratory laparotomy is surgery to open up the belly area (abdomen).
This surgery is done to find the cause of problems (such as pain or
bleeding). But testing could not diagnose. It's also used when an
abdominal injury needs emergency medical care.

exploratory.org

laparotomy - Health Topics | Saint Luke's Health System

Exploratory Laparotomy | Saint Luke's Health System

196. The most common neuroendocrine tumor of the pancreas is:

- A. Insulinoma
- B. Glucagonoma
- C. Gastrinoma
- D. VIPoma
- E. Somatostatinoma

Pancreatic islet cell tumors	
Insulinoma	Tumor of pancreatic islets → overproduction of insulin → hypoglycemia Mnemonic: Whipple triad : hypoglycemia, symptoms of hypoglycemia, relief by hypoglycemia diagnosis: and resolution of symptoms with normalization of plasma glucose levels. Symptomatic patients have 1 blood glucose and 1 C-peptide levels as exogenous insulin use. ~ 80% of cases associated with MEN1 syndrome. Treatment: surgical resection, not curative
Glucagonoma	Tumor of pancreatic islets → overproduction of glucagon Presents with 3 D's: dermatitis (necrolytic migratory erythema), diabetes (hyperglycemia, DVT), debility (weight, depression, diarrhea) Treatment: surgical resection, not curative
Somatostatinoma	Tumor of pancreatic islets → overproduction of somatostatin → hyposecretion of secretin, cholecystikinin, glucagon, insulin, gastric, enteric, inhibitory peptide (GIP) May present with diabetes mellitus, hypoglycemia, gallstones, gallbladder, achylia, achlorhydria Treatment: surgical resection, somatostatin analogs, octreotide for symptom control

Answer: A

197. The most common arrhythmia seen during laparoscopy is: (General)

- A. Sinus bradycardia. (peritoneal traction)
- B. Sinus tachycardia.
- C. Premature ventricular contraction.
- D. Atrial fibrillation.
- E. Ventricular tachycardia.

فقد

Answer: A

198. All of the following statements about diagnostic studies for the colon and rectum are true, EXCEPT:

- A. Acetylcholinesterase staining of rectal biopsies is unreliable for the diagnosis of Hirschsprung's disease.
- B. Defecography is useful for detecting "hidden" prolapse or rectal intussusception.
- C. A negative osmotic gap in stool is indicative of secretory diarrhea.
- D. A colonic transit time study involves serial abdominal x-rays after ingestion of radiopaque markers.
- E. Carcinoembryonic antigen (CEA) is useful for monitoring patients after resection for colon cancer.

في كل من

	Low stool osmotic gap	High stool osmotic gap
Osmotic gap	< 120 mOsm/L	> 300 mOsm/L
Interpretation	• Secretory diarrhea (7 secretion active inhibition of water absorption or functional diarrhea increased intestinal permeability)	• Osmotic diarrhea (excess pull of ingested substances into water into the intestinal lumen)
Example causes	• Excessive intake of laxatives (e.g., Milk of Magnesia, antacids, Laxatives) • Excessive intake of sorbitol, mannitol, polyethylene glycol (PEG) • Increased absorption of water and electrolytes	• Congestive heart failure, renal insufficiency, diabetes mellitus • Malabsorption (e.g., celiac disease, Whipple disease) • Pancreatic insufficiency



Answer: A

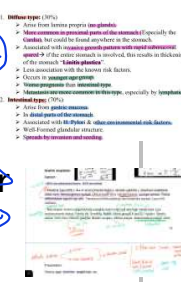
199. Regarding the intestinal type of gastric cancer according to Lauren, all the following statements are true EXCEPT:

- A. Dominant type in areas in which gastric cancer is epidemic.
- B. Associated with blood type A and familial cases suggesting genetic etiology
- C. More common in men
- D. Typically arises in the presence of a precancerous condition gastric atrophy or intestinal metaplasia.
- E. Usually well differentiated and spread haematogenously to distant organs

Japan/Asia

Genotype A with Diffuse

white Diffuse → Lymphatic



Answer: B

200. The most common malignant tumor of the liver is:

- A. Angiosarcoma.
- B. Lymphomas.
- C. Cholangiocarcinoma.
- D. Metastatic deposits.
- E. Hepatocellular carcinoma. (most common primary liver neoplasm)

Metastases	Most common malignant liver tumors overall: 1° sources include GI, breast, lung cancers Metastases are rarely solitary. (multiple nodules)
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Answer: D

201. One of the following is correct about groin hernia:

- A. Femoral hernia is more common in males. *♀ females*
- B. The inguinal hernia appears medial and below to the pubic tubercle. *Lateral & above*
- C. Direct inguinal hernia is lateral to the inferior epigastric artery. *(medial)*
- ☒ D. Hernioplasty is the surgical treatment for inguinal hernia in adult men.
- E. The risk of strangulation is more common in inguinal compared to femoral hernia

-plasty : to fix



Correct

Answer: D

202. All are true regarding the pathogenesis of brown stones except?

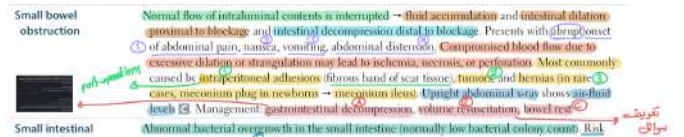
- A. They are formed mainly in the bile ducts.
- B. They are related to infections.
- C. Their content of cholesterol is less than 20%.
- ☒ D. They contain little amount of calcium palmitate.
- E. The calcium bilirubinate they contain is a monomer form



Answer: D

203. Simple intestinal obstruction may be associated with all the following EXCEPT:

- A. Oliguria. *loss of fluids*
- B. Edema of the intestinal wall.
- C. Bacterial translocation.
- D. Abdominal rigidity.
- E. Leukocytosis. *↑*



- Simple bowel obstruction: bowel obstruction with no evidence of complications (i.e., no features of bowel ischemia, bowel perforation, or red flags for complicated bowel obstruction) [10]
- Complicated bowel obstruction: bowel obstruction associated with strangulation, ischemia, necrosis, or perforation [10]
- Red flags for complicated bowel obstruction [10]
- Peritonitis signs
- Signs of systemic toxicity (e.g., SIRS)
- Hemodynamic instability
- Laboratory abnormalities (e.g., significant leukocytosis, metabolic acidosis, ↑ lactate)

Clinical features	SBO	LBO
Abdominal pain	• Colicky periumbilical	• Colicky in location
Vomiting and/or nausea	• Early onset	• Late onset
Constipation or obstipation	• Late onset	• Early onset
Abdominal distention	• Late onset	• Early onset
Examination findings	• Tenderness in periumbilical area	• Tenderness in right or left lower quadrant

Clinical course of acute and subacute bowel obstruction	Subacute bowel obstruction
• Acute onset of typical symptoms	• Clinical features are typically mild and progress slowly
• Peritonitis signs	• Signs of systemic toxicity or hemodynamic instability are rare
• Signs of systemic toxicity or hemodynamic instability are present	• Typically no strangulation (no bowel distention)
• Can progress to complicated bowel obstruction	• Perforated bowel obstruction
• Complicated bowel obstruction	• Late onset bowel obstruction
• High grade bowel obstruction	• Open bowel obstruction
• Closed loop bowel obstruction	

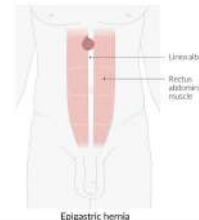
Answer: E (not sure)

204. A 50-year-old man presents with a complaint of a 1-cm moderately painful, tender mass situated one-third of the way between the xiphisternum and the umbilicus. What is the most likely diagnosis?

- A. Fat necrosis
- B. Omphalocele
- C. Epigastric hernia *
- D. Spigelian hernia
- E. Fibrosarcoma of the abdominal wall

• Anterior abdominal wall hernia

- Umbilical hernia: ventral protrusion at the level of the umbilicus [10]
- Epigastric hernia: ventral protrusion through the linea alba between the xiphisternum and the umbilicus [10]
- Incisional hernia: protrusion of intra-abdominal contents through a defect in the abdominal wall after laparotomy surgery
- Paraumbilical hernia: protrusion of intra-abdominal contents through the linea alba just above or below the umbilicus [10]



Answer: C (MAYBE)

205. Which of the following is false regarding emphysematous cholecystitis?

- A. Typical age 50 – 70 years old
- ☒ B. It is caused most commonly by klebsiella pneumoniae
- C. More common in diabetics
- D. More common in males

Emphysematous cholecystitis

- By gas-forming bacteria (*E. coli*)
- Usually in diabetic patients, males and elderly and has a high morbidity and mortality rate.
- Often results in perforation of gallbladder.
- If gas is present in:
 - Biliary tree → Think of fistula.
 - In gallbladder wall → think of emphysematous GB.

Answer: B

207. In acute abdomen, one of the following statements is INCORRECT:

- A. Vomiting is a common symptom.
- B. Board-like rigidity is typically seen in perforated peptic ulcers.
- C. The abdomen is characteristically silent on auscultation.
- D. Continuous pain is typical of inflammatory conditions.
- E. Colicky pain indicates obstruction of a hollow viscus.

Findings	Significance
Hyperactive bowel sounds	Common in inflammatory conditions
Diminished bowel sounds	Common in obstruction
Hyperactive bowel sounds	Common in obstruction
Diminished bowel sounds	Common in obstruction

Answer: honestly? All of these are correct

الجواب ج

208. The most common complication of hepatic hydatid disease is:

- A. Fever and urticaria.
- B. Rupture into biliary channel.
- C. Rupture into peritoneal cavity.
- D. Anaphylactic shock.
- E. Suppuration

منظر عن هذا السؤال

33. One of the following represents a major risk of ruptured hydatid liver cyst: ***

- A. rupture to bronchial tree
- B. rupture to pericardium
- C. rupture to stomach
- D. biliary rupture
- E. anaphylactic shock

Findings	Significance
Hyperactive bowel sounds	Common in inflammatory conditions
Diminished bowel sounds	Common in obstruction
Hyperactive bowel sounds	Common in obstruction
Diminished bowel sounds	Common in obstruction

Answer: E

52. The commonest complication of a liver hydatid cyst is (among the choices): **

- A. Biliary communication.
- B. Free rupture to the peritoneal cavity.
- C. Cyst infection.
- D. Compression of the hepatic veins.
- E. Fistulization to a hollow viscus.

Answer: A

Answer: A

209. A 72-year-old man collapses with sudden onset abdominal pain. He has been suffering from back pain recently and has been taking ibuprofen. What is the most likely cause?

- A. Bleeding Dieulafoy lesion
- B. Ruptured abdominal aortic aneurysm
- C. Peritonitis due to peptic ulcer disease
- D. Acute mesenteric artery embolus
- E. Pancreatitis

severe bleeding
PUD
AAA

Vascular Surgery:
Abdominal aortic aneurysm:

سبب جرحه انه
موقع يلاحظ مع
AAA
+
NOVISA: NSAIN
for pancreatitis

Findings	Significance
Hyperactive bowel sounds	Common in inflammatory conditions
Diminished bowel sounds	Common in obstruction
Hyperactive bowel sounds	Common in obstruction
Diminished bowel sounds	Common in obstruction

- Etiology: a combination of degeneration (age) and inflammation (atherosclerosis + smoking).
- Risk factors: smoking (most important), age, male gender, family history, PVD, CAD, Associated with popliteal or femoral aneurysms.
- Mostly infrarenal (90%).

Answer: B

210. Which of the following is the most common cause of pyogenic liver abscess?

- A. Iatrogenic
- B. biliary tract infection
- C. Colonic diverticulitis
- D. Appendicitis
- E. Trauma

Findings	Significance
Hyperactive bowel sounds	Common in inflammatory conditions
Diminished bowel sounds	Common in obstruction
Hyperactive bowel sounds	Common in obstruction
Diminished bowel sounds	Common in obstruction

Pyogenic abscess:

- Usually older people with risk factors: HIV, IVDU, travel, recent abdominal infection.
- Sources: portal (diverticulitis, appendicitis, IBD), biliary MC (cholangitis, cholecystitis), trauma, hematogenous. Causes: E coli, Klebsiella, Enterococcus, anaerobes.

Answer: B

211. One of the following is correct about familial adenomatous polyposis syndrome:

- A. Screening start at the teenage
- B. Presence of hamartomatous polyps in colon and rectum
- C. Is due to mutation at APC gene at chromosome number 8
- D. Hemicolectomy is the gold standard operation.
- E. The risk of malignancy in small bowel is 100%

Adenomatous

Total

Large

Polypoid syndromes

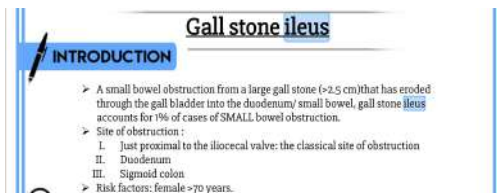
Familial adenomatous polyposis

Autosomal dominant mutation of APC tumor suppressor gene on chromosome 5q21-q22 2-hit hypothesis. Thousands of polyps arise starting after puberty, pancolonic, always involves rectum. Prophylactic colectomy or else 100% progress to CRC.

Answer: A

212. Gallstone ileus most commonly caused by:

- A. Gallbladder to second part of duodenum
- B. CBD to duodenum
- C. CBD to gastric
- D. Gallbladder to gastric
- E. CBD to jejunal



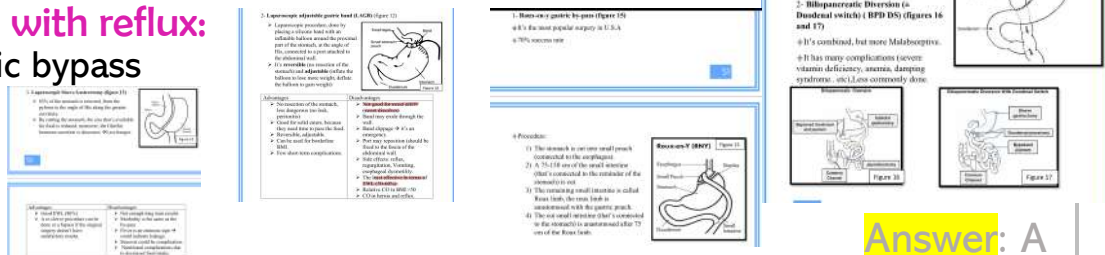
Answer: A

213. What's the best bariatric intervention for a patient with BMI 50, sweet eater, diabetic, hypertensive, with reflux:

- A. laparoscopic gastric bypass
- B. jejunoileal bypass
- C. gastric band
- D. sleeve

Not for sweet eaters

↓
Ghrelin



Answer: A

214. All of the following are associated with malignant transformation in small intestine except:

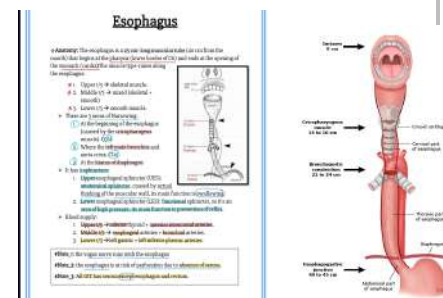
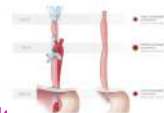
- A. Scleroderma
- B. Crohn's disease
- C. FAP
- D. Puets jeghers syndrome

Answer: A

215. One is right about esophageal anatomy:

- A. It deviates anterior and to the left at diaphragm
- B. It's 15 cm in length 25 cm
- C. It starts at the level of C5 C6
- D. It passes anterior to the aorta in the mediastinum posterior
- E. It's composed of somatic muscle fibers in the lower third

smooth



Answer: A

216. Gastric cancer a, what is wrong:

- A. CEA and some other tumor marker are used as diagnostic tests monitoring only
- B. Stage 3 is potentially resectable ✓
- C. Proximal gastric tumor might present with dysphasia ✓

Staging	Staging	Staging
<ul style="list-style-type: none"> T1: Tumor invades lamina propria T2: Tumor invades muscularis propria T3: Tumor invades serosa T4: Tumor invades adjacent structures 	<ul style="list-style-type: none"> N1: 1-3 lymph nodes N2: 4-6 lymph nodes N3: > 6 lymph nodes 	<ul style="list-style-type: none"> M1: Distant M2: Regional M3: Local

Answer: A

217. Case of acute cholangitis, which is wrong:

- A. Hematogenous spread of the organism via portal vein
- B. Classical presentation is abdominal pain, fever and jaundice
- C. Treat by antibiotics, monitoring sepsis, and biliary drainage
- D. If suppurative could also present with hypotension and altered mental status
- E. Most commonly caused by biliary stasis and obstruction

Acute cholangitis
Also called ascending cholangitis. Infection of biliary tree usually due to obstruction that leads to stasis/bacterial overgrowth.
Charcot triad of cholangitis includes: jaundice, fever, RUQ pain
Reynolds pentad is Charcot triad plus altered mental status and shock/hypotension

Answer: A

218. Hepatocellular carcinoma tumor marker:

- A. AFP
- B. CA19-9
- C. BCL2
- D. b-HCG

Answer: A

219. In achalasia, most sensitive test:

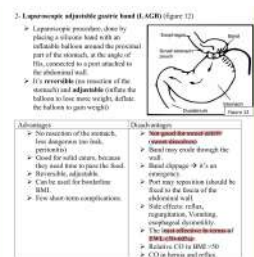
- A. Bird peak on Barium swallow
- B. Manometry showing failure of relaxation of LES with swallowing
- C. Biopsy
- D. Aperistalsis of cervical esophagus



Answer: B

220. Bariatric surgery, Band ligation, what is wrong:

- A. Banding shows comparable results with bypass in relation to the extent of weight loss
- B. Dumping syndrome is not a significant complication
- C. Poor choice for sweet eaters
- D. Results in less leak complications



Answer: A

221. Gallbladder function all true except:

- A. Absorption of water
- B. Absorption of H
- C. Absorption of Na
- D. Absorption of Cl
- E. Secretion of glycoprotein

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Answer: B

222. About meckel's diverticulum, which is wrong:

- A. Fresh bleeding
- B. Causes Painful hematemesis
- C. Contains gastric mucosa
- D. Contains pancreatic mucosa



Not upper GI Bleeding

Answer: B

223. About acute pancreatitis what is wrong:

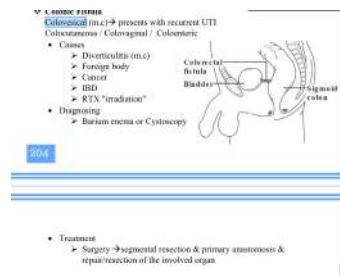
- A. Gall bladder stones including microlithiasis is MCC worldwide
- B. Alcohol is responsible for 30% of cases in Jordan
- C. Incidence following ERCP is 6%

أقل في الأردن لا نسجالات
الكحول

Answer: B

224. Most common cause of colovesical fistula?

- ☒ A. Diverticulitis
- ☐ B. Colonic abscess
- ☐ C. Crohn's disease
- ☐ D. Vesical squamous cell carcinoma
- ☐ E. Urethral obstruction



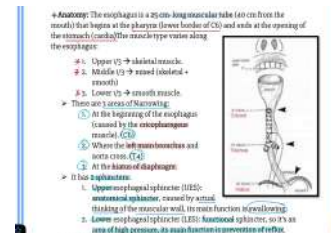
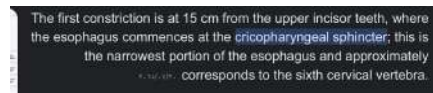
3. Fistulisation:

- Fistulas between colon and other organs may occur secondary to diverticulitis.
- **Colovesical fistulas are the most common and diverticulitis is the most common cause of colovesical fistulas.**
- Colovaginal and **colovesical** fistulas usually occur in women who have previously undergone hysterectomy.
- Colocutaneous and colenteric fistulas are uncommon.
- Colonoscopy should be done after 6 weeks to rule out other causes of fistulas.

Answer: A

225. Narrowest part of the esophagus:

- A. At the level of the aortic arch
B. Junction between second and third parts
C. Cricopharyngeus



Answer: C

226. One of the following is given in post splenectomy vaccination:

- A. Strep. Pneumonia
B. VZV
C. BCG
D. Tetanus

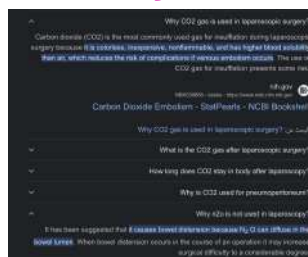
- **Preoperative consideration:**
 - Vaccinations for encapsulated bacteria two weeks prior to surgery:
 1. Strep Pneumonia.
 2. Haemophilus influenzae type B.
 3. Neisseria meningitides.

Bayan Muhammad
Sheikh Ali

Answer: A

227. Correct about gas used in lap cholecystectomy?

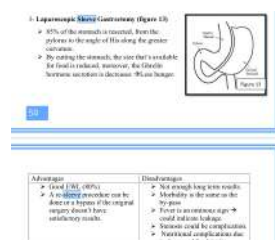
- A. Low water content
- B. It's mainly composed of O₂ CO₂
- C. It has high nitrogen content
- D. It's loaded with topical antibiotics No



Answer: A

228. Not a complication of sleeve?

- A. anastomosis leak
- B. stenosis
- C. nutritional imbalances



Anastomosis insufficiency

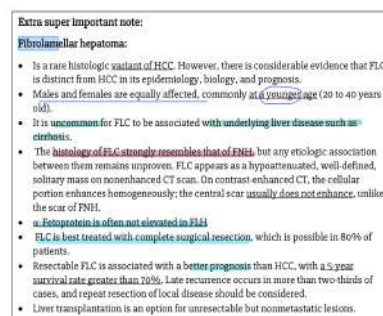
The leakage of intraluminal contents from the site of surgical anastomosis between two hollow viscera (e.g., after bowel or vascular anastomosis).

Answer: I don't know

الجواب 6: هيلا زو ما في Anastomosis

229. Wrong about fibrolamellar liver CA :

- ☒ A. elevates alpha feto protein in 90% of cases
- ☐ B. Doesn't have male predominance
- ☐ C. Happens in ages 5-35
- ☐ D. Cirrhosis isn't an identified risk factor



Answer: A

230. Regarding squamous cell carcinoma of the anal canal, which is true??

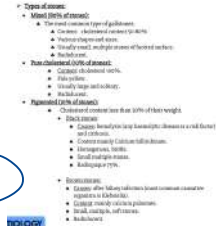
- ☒ A. Related to HPV
- B. Most common in teenage
- C. More common in males



Answer: A

231. Wrong about gallstones:

- A. Black stones are associated with hemolysis
- ☒ B. Black stones occur exclusively in the gallbladder
- C. Brown stones associated with biliary tract infections
- D. Pure cholesterol stones = solitary
- ☒ E. Brown stones associated with increased calcium bilirubinate



Answer: E

232. Not part of gastric CA evaluation:

- A. CT
- B. Endoscopic u/s
- C. Laparoscopy
- ☒ D. Laparotomy

مذكور سابقاً

Answer: D

233. About diverticular disease which is wrong:

- ☒ A. 60% develop diverticulitis
- B. Most common cause of LGI bleeding

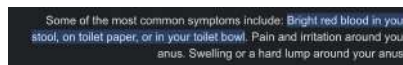
مذكور سابقاً

Answer: A (it is 10-25%)

235. wrong about hemorrhoids:

- A. Peak at age 45-65
- ☒ B. Most common symptom is pain
- C. Hemorrhoids are normally cushions found in everyone and aid in continence
- D. Internal are covered by mucosa, external by skin
- E. Stage 3 and 4 corrected surgically

مذكور سابقاً



Answer: B

236. One is true regarding the orientation of CBD , hepatic artery and portal vein

- ☒ A. CBD right , hepatic artery left . portal vein posterior
- B. CBD left , hepatic artery and portal vein posterior
- C. CBD right, hepatic artery and portal vein posterior
- D. CBD right, hepatic artery left, portal vein posterior

مذكور سابقاً

Answer: A



237. 55 male patient with inguinal pain, he has had a swelling that was reducible .. Now there's absent cough impulse what to do:

- A. Exploration (because pain is a sign of strangulation)
- B. U/S
- C. CT scan
- D. Iv antibiotics in the surgical ward

Which hernia has a cough impulse?
Hernias of the groin typically present with the following clinical features: Single lump in the inguinal region. Positive cough impulse (unless incarcerated)

The presence of an expansile cough impulse is almost diagnostic of a hernia. However a hernia may not have a cough impulse - neck of the sac may be blocked by adhesions which prevent the movement of additional viscera into the sac during coughing.

Answer: A (maybe)

238. Which is true about Familial adenomatous polyposis:

- A. Problem on ch15 *5*
- B. 75% will develop into malignancy *100%*
- C. Polyps in late adulthood *early*
- D. Panproctocolectomy with pouch is curative

Answer: D

239. Wrong about bariatric surgery:

- A. Gastric bypass is restrictive not malabsorptive
- B. bypass is good for sweat eaters ✓
- C. banding is number one in children ✓

Answer: A (it's both)

240. Carcinoid syndrome, what is wrong:

- A. Comes with neuroendocrine tumors
- B. Can be with MEN1
- C. The syndrome is associated with 5-HIAA
- D. Tumors originate from fibrous cells

Carcinoid tumors
Carcinoid tumors arise from **apudneuroendocrine cells**, most commonly in the **intestine or lung**. Neuroendocrine cells **secrete 5-HT** which undergoes **decarboxylation** and **acetylation** to form **5-HT** and **5-HTP** on the **lung**. If 5-HT reaches the systemic circulation (eg, after liver metastasis), carcinoid tumor may present with carcinoid syndrome - **episodic flushing, diarrhea, wheezing, right-sided valvular heart disease** i.e. **tricuspid regurgitation, pulmonary stenosis, aortic regurgitation, aortic stenosis**. Tumors **secrete 5-HIAA**.
Histology: nests of **chromogranin A**+, **synaptophysin**+, **chromatin**+, **neurosecretory granules**.
Treatment: **surgical resection**, **symptomatic** (eg, octreotide) or **trypsinogen hydrolytic inhibitor** (eg, telotristat) for symptom control.
Rate of death:
4/5 metastatic
1/5 present with 2nd malignancy
1/5 are multiple

Answer: D

241. Bleeding artery in duodenal ulcer is:

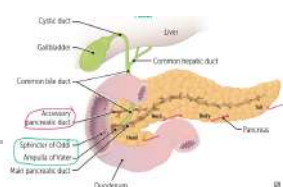
- A. Gastroduodenal artery *↳ posterior*
- B. Right gastroepiploic artery
- C. Hepatic artery
- D. Right gastric artery
- E. Splenic artery

Anterior → perforation

Answer: A

242. Abdominal Anatomy, all of the following are true except:

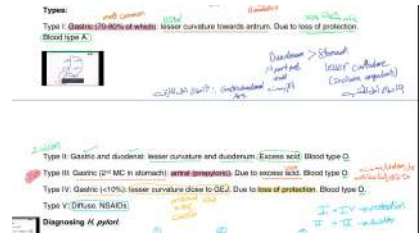
- A. Pancreas is related to medial side of duodenum
- B. Liver and gb cover 1st part of duodenum *False*
- C. The portal vein is created by the **splenic vein and SMV**
- D. The gastroduodenal artery originates from the common hepatic artery



Answer: B

243. True about type one benign gastric ulcer: ****

- A. Associated with hypergastrinemia
- B. Increased with increased parietal cell activity
- C. Decreased mucosal defenses**
- D. Underlying etiology includes vagal over stimulation



Answer: C

244. A patient with BMI above 50, sweet eater, comorbidities, best bariatric surgery in this case is:

- A. Laparoscopic sleeve gastrectomy
- B. Laparoscopic gastric bypass**
- C. Vertical banded gastroplasty
- D. Lap adjustable gastric band

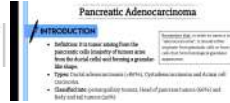
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Answer: B

245. Pancreatic adeno carcinoma, which is false:

- A. 70% in the head
- B. 90% ductal
- C. In resectable, 20% 5-yr survival
- D. P16 mutation is found in more than 90% (this is true)
- E. Papillary and mucinous cystadenocarcinoma are worse prognosis**

Ductal



- Prognosis:
 - Unresectable tumor → 5-year survival is < 5% (they live about 4-6 months).
 - After successful resection → 5-year survival 15-20% (they live about 12-19 months).

Answer: E

246. All seen with crohn's disease except:

- A. Leap pipe appearance on barium enema → UC**
- B. Serosal involvement
- C. Skipped lesions
- D. Cobblestone
- E. Cryptitis



Answer: A

I hope you get the best grades and best outcomes this year, with the biggest yield of knowledge inshaAllah..

Please do contact me if you spot any mistakes and/ or you have any question
Best of luck

