Quick-Fire: 50 Questions in General Surgery - Part 1

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Abstract

This review was created to help review the topics in general surgery. A list of fifty "quick-fire" questions is presented followed by brief, clinically-relevant answers (at least in the author's opinion).

QUESTIONS

1. What is the most common complication of antrectomy ?
2. What are the three major components to MEN-I ?
3. What is the most common cause of chronic cholestasis in children ?
4. What is the operation of choice in Achalasia ?
5. How do you diagnose a Gastrinoma ?
6. What is the most common site of obstruction from colon cancer ?
7. What is Boerhave's Syndrome ?
8. What is the most common neuroendocrine tumor found in MEN-I ?
9. What is the most common type of pituitary tumor found in MEN-I ?
10. How do you treat Toxic Megacolon ?
11. Which antibiotic has the highest incidence of producing C. difficile colitis ?
12. How do you treat a cecal volvulus ?
13. What chromosome is responsible for MEN-I ?
14. What is the usual cause of death in MEN-I patients ?
15. What is Ogilvie's Syndrome ?
16. What is a Cushing's Ulcer ?
17. What is MEN-II a?
18. What is MEN-IIb ?
19. What is the preoperative management of a patient with known pheochromocytoma ?
20. What is ‘pancreas divisum' ?
21. How do you treat an annular pancreas ?
22. What is the ‘normal' anatomy of the Left Recurrent Laryngeal Nerve ?
23. What is the ‘normal' anatomy of the Right Recurrent Laryngeal Nerve ?
24. What are the most common causes of large bowel obstruction ?
25. How do you manage Crohn's disease of the appendix ?
26. What is a Type II Gastric Ulcer ?
27. What is the function of the External branch of the Superior Laryngeal Nerve ?
28. What is the function of the Internal branch of the Superior Laryngeal Nerve ?
29. How do you manage bile reflux gastritis ?
30. What is Plummer-Vinson Syndrome ?
31. How do you treat Gaucher's Disease ?
32. What is Hereditary Spherocytosis ?
33. How do you treat Hereditary Spherocytosis ?

34. Where does the Inferior Thyroid Artery originate ?
35. What chromosome is BRCA-1 located on ?
36. What chromosome is BRCA-2 located on ?
37. What is a ‘common' cause of massive hemoptysis in children ?
38. What is Ancanthosis nigracans ?
39. What is Horner's Syndrome ?
40. What is the “Blakemore Tube” and how is it used ?
41. What factors are in Cryoprecipitate ?
42. What is the deficiency in Hemophilia A ?
43. What is the deficiency in Hemophilia B ?
44. What is the toxic dose of Lidocaine with and without epinephrine ?
45. What is the classic sign of lidocaine toxicity ?
46. How do you calculate the Gradient in Portal Hypertension ?
47. How do you treat a Unilateral-locked facet ?
48. When do you give steroids for neuro-trauma ?
49. What are the three immune products of the spleen ?
50. What are Salter-Harris Classes and which ones may impede growth ?

ANSWERS

1. Bile reflux gastritis
2. “Werner's Syndrome”: Parathyroid Hyperplasia Pancreatic Neuroendocrine Tumor Pancreatic Tumor
3. Congenital Biliary AtresiaHeller myotomy with or without Nissan fundiplication (controversial)
4. a. Serum Gastrin level > 500 ucg b. Basal acid output to maximal acid outout ratio > 0.6 c. Calcium-stimulating test, 4 mg/ kg IV over 5 minutes: this will double the baseline gastrin level in the presence of a gastrinoma (secretin stimulation is no longer performed)
5. Sigmoid colon
6. Boerhave's is a post-emetic perforation of the esophagus which usually presents as fever and right-sided chest pain; early detection is the key to survival !
7. Gastrinoma
8. Prolactinoma
9. Treatment of toxic megacolon is dependent on the underlying state of the patient. Fluid resuscitation and intravenous broad-spectrum antibiotics are mandatory. If the patient is stable, you may consider urgent colonoscopic decompression (being careful not insufflate excessive air). If the pt is deteriorating or presents acutely unstable and actively septic, total abdominal colectomy may be necessary (in this situation, I would tend to perform a relatively quick operation utilizing an end-ileostomy rather than a primary anastamosis).
10. Clindamycin
11. Right hemicolectomy with ileocolic anastamosis; cecopexy is not preferred by most surgeons
12. Chromosome # 11
13. Neoplasia is the primary cause of death (not the biochemical effects of the tumor)
14. Colonic pseudo-obstruction which presents as massive abdominal distension
15. Stress ulcer associated with closed head injury
16. “Sipple's Syndrome”: Parathyroid hyperplasia,
17. Pheochromocytoma, Medullary Thyroid Cancer
18. Pheochromocytoma, Medullary Thyroid Cancer, Neuromas (as well as a marphinoid habitus)
19. To optimize medical management:
    a. 2 weeks preoperative - Alpha-blockade with Phenoxybenzamine
    b. 1 week preoperative - Beta-blockade with Inderal
    c. and, if necessary in the operating room – IV Phentolamine

21. Nonfusion of the Major (Wirsung) and Minor (Santorini) pancreatic ducts; the minor duct becomes the primary route of drainage
22. Duodenal bypass
23. Wraps around the aortic arch
24. Wraps around the right subclavian artery; the Right recurrent nerve has a more variable course compared to the Left
25. Large Bowel Obstruction: Carcinoma (2/3 of cases)
27. Volvulus
28. Diverticular disease
29. Hernias, intussusception, fecal impaction

1. Appendectomy if the cecum is not actively involved, otherwise may need to proceed with segmental resection. Remember, most fistulas do not arise from the appendiceal base but rather from the terminal ileum.
2. Type II is a gastric ulcer associated with a duodenal ulcer
3. Innervates the cricothyroid muscle to affect pitch
4. Sensory to the larynx
5. Surgical treatment of bile reflux:
7. Convert B-I or B-II to a Roux-en-Y gastrojejunostomy with a 40 cm. jejunal distance
8. Must ensure that there is a complete vagotomy and all of the antrum was previously resected
1. Esophageal webs, microcytic anemia, and smooth fingernails – which as a syndrome is associated with a higher risk of esophageal cancer*
2. partial splenectomy
3. autosomal dominant deficiency of spectrin leading to an inability of the red cell to deform appropriately which leads to splenomegaly and anemia
4. total splenectomy
5. the thyrocervical trunk
6. Chromosome # 17
7. Chromosome # 11
8. Tuberculosis (treat by embolization)
9. Bilateral axillary hyperpigmentation associated with underlying gastric ca or lung ca
10. Miosis, ptosis, anhydrosis
11. The Blakemore Tube: indicated in persistent UGI bleeding secondary to varices
    1. Intubate the pt (you must secure the airway)
    2. Place tube into the stomach
    3. Inflate the gastric balloon with 50 cc's and confirm gastric position with KUB
    4. After confirmation, inflate another 200 cc's
    5. Place tube to 5lb's traction
    6. If bleeding still persists, inflate Esophageal balloon to 40 mmHg
    7. * remember, you must deflate the esophageal component every 12 hours to minimize wall ischemia and subsequent necrosis
13. Factor VIII, VonWillebrand's factor, and Fibrinogen
14. Factor VIII
15. Factor IX
16. The toxic dose of Lidocaine is between 5 – 7 mg/kg; with epinephrine the total dose injected is a bit higher secondary to local vasoconstriction. A 1 % solution will contain 10 mg/cc. a. With Epinephrine: 6 - 7 mg/kg in a 70 kg male = 420 – 470 mg total dose = 42 – 47 cc's injected b. Without Epinephrine: 5 mg/kg in a 70 kg male = 350 mg total dose = 35 cc's injected
17. Seizures
18. Gradient = Wedged Hepatic P – Free Hepatic P (4-6 mmHg) (5 – 10 mmHg) (0 – 5 mmHg)
    1. Remember, only half of all cirrhotics will develop varices, and of these, only half will bleed (still adds up to major morbidity & mortality)
    2. The role of surgery in Portal Hypertension, is only AFTER all medical and endoscopic measures have

been taken

20. You must reduce a unilateral-locked facet with 5 lbs. of traction per vertebrae
21. Steroids in c-spine trauma remain controversial. They are never given for closed head injury! With c-spine injury (usually blunt), they are best if administered within 6 hrs of the traumatic mechanism. Solumedrol 30 mg/kg IV bolus followed by 5.4 mg/kg IV gtt for 23 hrs.
22. Tuftsin, properidin, and IgM
23. Salter-Harris I - V:
25. I fracture line through the growth plate, separating epiphysis from metaphysis
26. II fracture line into the metaphysis
27. III separation of the epiphysis along the physis, with the fracture line passing Through the epiphysis to the articular surface
28. IV fracture line crosses the physis, separating a peripheral fragment of bone that includes portions of epiphysis, physis, and metaphysis
29. V compression of the physis due to a severe axial load
30. Types III - V are potentially growth-limiting.

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References

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