

CHAPTER 22. PORTAL HYPERTENSION & CIRRHOSIS, SELF-ASSESSMENT QUESTIONS

1. The police bring a 54-year-old man to the emergency department after he is found wandering aimlessly on a college campus. He is alert and oriented × 1 (he knows his name) but doesn't know the season or where he is. His initial physical examination is noncontributory with the exception of moderate jaundice, scleral icterus, and a distended abdomen. A toxicology screen is negative for drugs and alcohol, but his serum ammonia level is elevated. Which of the following initial therapies is most appropriate?

 - A. Lactulose
 - B. Metronidazole
 - C. Neomycin
 - D. Rifaximin
 - E. Flumazenil
2. A patient with known cirrhosis has complaints of abdominal pain. The medical resident performs a therapeutic paracentesis and removes 6 L of fluid. What is the most appropriate adjunct therapy?

 - A. Give 50 g of 25% albumin
 - B. Give 10 g of 25% albumin
 - C. Give 100 g of 5% albumin
 - D. Do not give albumin
3. Fluid obtained from a cirrhotic patient during paracentesis was sent to the laboratory for analysis with the following results: PMN count 340 cells/ μL ($340 \times 10^6/\text{L}$), SAAG 1.3 g/dL (13 g/L), gram stain negative. What is the most appropriate therapy?

- A. No drug therapy necessary
 - B. Intensify diuresis
 - C. Initiate narrow-spectrum antibiotics
 - D. Initiate broad-spectrum antibiotics
4. What is the most appropriate drug regimen to decrease the accumulation of peritoneal fluid (ascites) in a patient with low blood pressure and no peripheral edema?
- A. Spironolactone
 - B. Furosemide
 - C. 25% albumin
 - D. Midodrine
 - E. A and C only
5. How should an SAAG of 1.3 g/dL (13 g/L) be interpreted?
- A. Indicates peritoneal infection as cause of ascites
 - B. Indicates portal hypertension as cause of ascites
 - C. Indicates heart failure as cause of ascites
 - D. Indicates malignancy as cause of ascites
6. Which one of the following statements is correct regarding spontaneous bacterial peritonitis (SBP) as a complication of cirrhosis?
- A. Do not prescribe antibiotics if the paracentesis gram stain is negative
 - B. Always use a broad-spectrum antibiotic for suspected SBP because it is usually polymicrobial

- C. SBP is usually monomicrobial, so a narrow spectrum antibiotic should be used empirically
 - D. Patients with prior SBP should be assessed for long-term antibiotic prophylaxis
7. A patient with long-standing cirrhosis has confirmed SBP. What is the most appropriate antibiotic therapy?
- A. Vancomycin 1 g IV every 12 hours
 - B. Ceftriaxone 1 g IV every 24 hours
 - C. Trimethoprim/sulfamethoxazole two double-strength tablets orally every 12 hours
 - D. Nitrofurantoin 100 mg orally every 12 hours
8. Why should patients with SBP receive albumin on Day 1 and Day 3 of treatment?
- A. To prevent ascites
 - B. To prevent hepatorenal syndrome (HRS)
 - C. To prevent variceal bleeding
 - D. To prevent hypoalbuminemia
9. A patient with hepatorenal syndrome is transferred from the emergency department. What is the most appropriate initial therapy?
- A. Albumin 1 g/kg IV, midodrine 7.5 mg orally three times daily, octreotide 100 mcg subcutaneously three times daily
 - B. Albumin 6 to 8 g/kg IV, propranolol 10 mg orally twice daily, octreotide 50-mcg/hour IV infusion
 - C. Spironolactone 100 mg orally daily, furosemide 40 mg orally daily

- D. Propranolol 10 mg orally twice daily, midodrine 7.5 mg orally three times daily, furosemide 20 mg orally twice daily

10. What is the cause of the thrombocytopenia that often occurs in patients with cirrhosis?

- A. Decreased hepatic synthesis of platelet-stimulating factors
- B. Bone marrow failure
- C. Splenic sequestration of platelets
- D. A and C only
- E. A, B, and C

11. What factors other than thrombocytopenia can contribute to increased risk of bleeding in patients with cirrhosis?

- A. Increased variceal pressure due to volume overload
- B. Progression of cirrhosis with increased first-pass metabolism of foods rich in vitamin K
- C. Decreased synthetic function combined with vitamin K malabsorption
- D. Decreased albumin with increased systemic venous pressure

12. What is the most appropriate initial therapy for a cirrhotic patient who presents with hematemesis?

- A. Octreotide IV infusion and IV proton-pump inhibitor
- B. Octreotide IV infusion and oral propranolol
- C. Fluoroquinolone IV and oral midodrine
- D. Third-generation cephalosporin IV and octreotide IV infusion

13. Which one of the following statements is accurate regarding a patient with variceal bleeding?

- A. Low-dose propranolol alone is the regimen of choice for secondary prophylaxis; it has been shown to reduce the risk of rebleeding
- B. If the patient has a history of hypertension, it may be appropriate to use metoprolol succinate to control portal hypertension
- C. Most patients should be started on propranolol and isosorbide mononitrate to decrease blood pressure and reduce the risk of repeated bleeding
- D. If endoscopic band ligation stops the bleeding, further pharmacologic therapy is not warranted

14. Which one of the following is correct regarding the progression and etiology of cirrhosis?

- A. The most common cause of cirrhosis in the United States is hepatitis B
- B. Results of the physical examination and laboratory report are often the only way to determine the etiology of cirrhosis
- C. Cirrhosis is the progressive replacement of viable hepatocytes with fibrosis and scar tissue
- D. Cirrhosis is easily reversible if it is diagnosed early

15. What is the cause of hyponatremia that often occurs in patients with advanced cirrhosis?

- A. Decreased sodium intake due to reduced absorption

- B. Increased water retention from activation of the renin-angiotensin-aldosterone system
- C. Change in sodium and potassium balance because of hyperaldosteronism
- D. Decreased water excretion because of hepatorenal syndrome

ANSWERS

- 1. A
- 2. A
- 3. D
- 4. A
- 5. B
- 6. D
- 7. B
- 8. B
- 9. A
- 10. D
- 11. C
- 12. D
- 13. A
- 14. C
- 15. B