

### QUESTION

1. A patient with a long history of alcohol abuse presents with a 2-week history of weight loss, weakness, and confusion. On physical examination, there is a bilateral lower-extremity edema, a bilateral lower-extremity pitting edema, and a bilateral lower-extremity pitting edema. The patient's laboratory studies are as follows:

Test	Result
White blood cell count	12,000/mm <sup>3</sup>
Hemoglobin	10 g/dL
Hematocrit	30%
Serum albumin	2.5 g/dL
Serum total protein	5.5 g/dL
Serum bilirubin	2.5 mg/dL
Serum aspartate aminotransferase (AST)	100 U/L
Serum alanine aminotransferase (ALT)	150 U/L
Serum prothrombin time (PT)	18 seconds
Serum international normalized ratio (INR)	2.5
Serum creatinine	1.5 mg/dL
Serum sodium	125 mEq/L
Serum potassium	3.5 mEq/L
Serum calcium	8.5 mg/dL
Serum magnesium	1.5 mg/dL
Serum phosphorus	2.5 mg/dL
Serum uric acid	6.5 mg/dL
Serum lactate dehydrogenase (LDH)	1000 U/L
Serum ferritin	1000 ng/mL
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2. A patient with a long history of alcohol abuse presents with a 2-week history of weight loss, weakness, and confusion. On physical examination, there is a bilateral lower-extremity edema, a bilateral lower-extremity pitting edema, and a bilateral lower-extremity pitting edema. The patient's laboratory studies are as follows:

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3. A patient with a long history of alcohol abuse presents with a 2-week history of weight loss, weakness, and confusion. On physical examination, there is a bilateral lower-extremity edema, a bilateral lower-extremity pitting edema, and a bilateral lower-extremity pitting edema. The patient's laboratory studies are as follows:

### ANSWERS

1. The patient's clinical presentation and laboratory studies are consistent with alcoholic liver disease. The patient's weight loss, weakness, and confusion are likely due to malnutrition and liver failure. The bilateral lower-extremity edema is likely due to liver failure and hypoalbuminemia. The patient's laboratory studies show a leukocytosis, anemia, and thrombocytopenia, which are all consistent with liver failure. The patient's serum albumin is low, and her serum total protein is also low. Her serum bilirubin is elevated, and her serum aspartate aminotransferase (AST) and serum alanine aminotransferase (ALT) are both elevated. Her serum prothrombin time (PT) is prolonged, and her serum international normalized ratio (INR) is elevated. Her serum creatinine is elevated, and her serum sodium is low. Her serum potassium is low, and her serum calcium is low. Her serum magnesium is low, and her serum phosphorus is low. Her serum uric acid is elevated, and her serum lactate dehydrogenase (LDH) is elevated. Her serum ferritin is elevated, which is consistent with liver failure.

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