

QUESTION

1. A patient with a long history of alcohol abuse presents with a 2-week history of weight loss, weakness, and confusion. On admission, the patient is found to have a serum sodium of 125 mEq/L, serum glucose of 100 mg/dL, and serum urea nitrogen of 18 mg/dL. The patient's physical examination is unremarkable. The patient's laboratory studies are as follows:

Test	Result
Serum sodium	125 mEq/L
Serum glucose	100 mg/dL
Serum urea nitrogen	18 mg/dL
Serum creatinine	1.2 mg/dL
Serum albumin	3.5 g/dL
Serum total protein	6.5 g/dL
Serum calcium	8.5 mg/dL
Serum potassium	3.5 mEq/L
Serum magnesium	0.8 mg/dL
Serum phosphorus	2.5 mg/dL
Serum ferritin	100 ng/mL
Serum transferrin	2.5 g/L
Serum transferrin saturation	10%
Serum transferrin receptor	1.5 mg/L
Serum transferrin receptor index	0.5
Serum transferrin receptor-2	1.5 mg/L
Serum transferrin receptor-2 index	0.5

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ANSWER

1. The patient's laboratory studies are consistent with a diagnosis of alcoholic liver disease. The patient's serum sodium is low, which is consistent with hyponatremia. The patient's serum glucose is normal, which is consistent with a normal glucose tolerance test. The patient's serum urea nitrogen is elevated, which is consistent with renal dysfunction. The patient's serum creatinine is normal, which is consistent with a normal renal function test. The patient's serum albumin is low, which is consistent with liver dysfunction. The patient's serum total protein is low, which is consistent with liver dysfunction. The patient's serum calcium is low, which is consistent with liver dysfunction. The patient's serum potassium is low, which is consistent with liver dysfunction. The patient's serum magnesium is low, which is consistent with liver dysfunction. The patient's serum phosphorus is low, which is consistent with liver dysfunction. The patient's serum ferritin is normal, which is consistent with a normal iron study. The patient's serum transferrin is low, which is consistent with liver dysfunction. The patient's serum transferrin saturation is low, which is consistent with liver dysfunction. The patient's serum transferrin receptor is normal, which is consistent with a normal transferrin receptor study. The patient's serum transferrin receptor index is low, which is consistent with liver dysfunction. The patient's serum transferrin receptor-2 is normal, which is consistent with a normal transferrin receptor-2 study. The patient's serum transferrin receptor-2 index is low, which is consistent with liver dysfunction.