

QUESTION

10. A patient with a long history of alcohol abuse has been admitted to the hospital with a diagnosis of cirrhosis of the liver. The patient is currently on a sodium-restricted diet. The patient's laboratory values are as follows:

Na ⁺	130 mEq/L
K ⁺	3.5 mEq/L
Cl ⁻	100 mEq/L
HCO ₃ ⁻	24 mEq/L
BUN	20 mg/dL
Cr	1.5 mg/dL
Ca ²⁺	8.5 mg/dL
Mg ²⁺	1.5 mg/dL
Albumin	3.5 g/dL
INR	1.5
PT	14.5 sec
APTT	35 sec
Fibrinogen	200 mg/dL
D-dimer	0.5 mg/dL

Which of the following is the most likely cause of the patient's hyponatremia?

- Excessive sodium intake
- Excessive potassium intake
- Excessive chloride intake
- Excessive bicarbonate intake
- Excessive water intake

ANSWER

- The correct answer is E. Excessive water intake. The patient's hyponatremia is most likely due to excessive water intake, which is a common complication of cirrhosis.

The patient's laboratory values show hyponatremia (Na⁺ 130 mEq/L) and hypokalemia (K⁺ 3.5 mEq/L). The patient's albumin level is low (3.5 g/dL), and the patient's INR is elevated (1.5). The patient's PT is elevated (14.5 sec) and the patient's APTT is elevated (35 sec). The patient's fibrinogen level is low (200 mg/dL) and the patient's D-dimer level is low (0.5 mg/dL). The patient's BUN is elevated (20 mg/dL) and the patient's Cr is elevated (1.5 mg/dL). The patient's Ca²⁺ level is low (8.5 mg/dL) and the patient's Mg²⁺ level is low (1.5 mg/dL).

EXPLANATION

The patient's hyponatremia is most likely due to excessive water intake, which is a common complication of cirrhosis. The patient's laboratory values show hyponatremia (Na⁺ 130 mEq/L) and hypokalemia (K⁺ 3.5 mEq/L). The patient's albumin level is low (3.5 g/dL), and the patient's INR is elevated (1.5). The patient's PT is elevated (14.5 sec) and the patient's APTT is elevated (35 sec). The patient's fibrinogen level is low (200 mg/dL) and the patient's D-dimer level is low (0.5 mg/dL). The patient's BUN is elevated (20 mg/dL) and the patient's Cr is elevated (1.5 mg/dL). The patient's Ca²⁺ level is low (8.5 mg/dL) and the patient's Mg²⁺ level is low (1.5 mg/dL).

REFERENCE

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3111111/>