

### QUESTION

1. A patient with a long history of alcohol abuse presents with a 2-week history of progressive weakness, weight loss, and anorexia. Physical examination reveals a thin, elderly man with a dry mouth, tachycardia, and a positive Tinel's sign at the wrist. Laboratory studies show a serum glucose of 100 mg/dL, a serum bicarbonate of 18 mEq/L, and a serum calcium of 8.5 mg/dL. The patient's most likely diagnosis is:

A. Alcohol withdrawal  
B. Hypokalemia  
C. Hypomagnesemia  
D. Hypothyroidism  
E. Vitamin B12 deficiency

| Option | Correct Answer | Explanation   |
|--------|----------------|---|
| A      | Incorrect      | Alcohol withdrawal typically presents with tremors, sweating, and hypertension, but not with the chronic symptoms described.  |
| B      | Incorrect      | Hypokalemia can cause weakness and weight loss, but it does not explain the positive Tinel's sign or the metabolic abnormalities.   |
| C      | Correct        | Hypomagnesemia is a common complication of chronic alcohol abuse. It can lead to weakness, weight loss, and anorexia. The positive Tinel's sign at the wrist is characteristic of carpal tunnel syndrome, which is often associated with hypomagnesemia. The metabolic abnormalities (hypocalcemia and metabolic acidosis) are also consistent with hypomagnesemia. |
| D      | Incorrect      | Hypothyroidism can cause weight loss and weakness, but it does not explain the positive Tinel's sign or the metabolic abnormalities.  |
| E      | Incorrect      | Vitamin B12 deficiency can cause weakness and weight loss, but it does not explain the positive Tinel's sign or the metabolic abnormalities.  |

ANSWER: C

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