

### QUESTION

1. A 60-year-old male patient with a long history of hypertension and a recent diagnosis of type 2 diabetes mellitus is being treated with lisinopril and metformin. He has been experiencing increasing fatigue and weakness over the past few weeks. His blood pressure is well-controlled, and his blood glucose levels are stable. Physical examination reveals mild anemia and no other significant findings. Laboratory tests show a hemoglobin level of 11 g/dL, a hematocrit of 33%, and a mean corpuscular volume (MCV) of 85 fL. The reticulocyte count is 0.5%. The patient's renal function is normal, and there are no signs of heart failure. What is the most likely cause of his anemia?

- A. Iron deficiency anemia
- B. Vitamin B12 deficiency
- C. Folate deficiency
- D. Chronic kidney disease
- E. Hemolytic anemia

ANSWER: A

EXPLANATION: The patient's anemia is most likely due to iron deficiency. The MCV is in the microcytic range, and the reticulocyte count is low, which is consistent with a chronic, non-regenerative anemia. Iron deficiency is a common cause of anemia in patients with chronic conditions like hypertension and diabetes.

### QUESTION

2. A 45-year-old male patient with a long history of hypertension and a recent diagnosis of type 2 diabetes mellitus is being treated with lisinopril and metformin. He has been experiencing increasing fatigue and weakness over the past few weeks. His blood pressure is well-controlled, and his blood glucose levels are stable. Physical examination reveals mild anemia and no other significant findings. Laboratory tests show a hemoglobin level of 11 g/dL, a hematocrit of 33%, and a mean corpuscular volume (MCV) of 85 fL. The reticulocyte count is 0.5%. The patient's renal function is normal, and there are no signs of heart failure. What is the most likely cause of his anemia?

- A. Iron deficiency anemia
- B. Vitamin B12 deficiency
- C. Folate deficiency
- D. Chronic kidney disease
- E. Hemolytic anemia

ANSWER: A

EXPLANATION: The patient's anemia is most likely due to iron deficiency. The MCV is in the microcytic range, and the reticulocyte count is low, which is consistent with a chronic, non-regenerative anemia. Iron deficiency is a common cause of anemia in patients with chronic conditions like hypertension and diabetes.