

### QUESTION

A 65-year-old male patient with a long history of hypertension and hyperlipidemia presents to the clinic with a 2-week history of increasing fatigue and weakness. He reports that he has lost about 10 pounds (4.5 kg) and has noticed some swelling in his lower legs. He has no chest pain, shortness of breath, or changes in bowel habits. His medical history is significant for hypertension, hyperlipidemia, and a recent diagnosis of type 2 diabetes. He is currently on lisinopril, atorvastatin, and metformin. His physical examination shows a heart rate of 98 bpm, blood pressure of 145/90 mmHg, and a respiratory rate of 18. There is mild lower-extremity edema. Laboratory tests show a hemoglobin of 11.5 g/dL, hematocrit of 35%, and a mean corpuscular volume of 105 fL. The serum ferritin is 150 ng/mL, and the serum iron is 150 µg/dL. The total iron-binding capacity is 300 µg/dL, and the transferrin saturation is 50%. The erythrocyte sedimentation rate is 15 mm/h, and the C-reactive protein is 0.5 mg/dL. The patient's renal function is stable, with a serum creatinine of 1.2 mg/dL and an estimated glomerular filtration rate of 60 mL/min/1.73 m<sup>2</sup>.

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

**A** Iron deficiency anemia

**B** Vitamin B12 deficiency

**C** Folate deficiency

**D** Chronic kidney disease

**E** Hemolytic anemia

ANSWER: A

### QUESTION

A 45-year-old male patient with a long history of hypertension and hyperlipidemia presents to the clinic with a 2-week history of increasing fatigue and weakness. He reports that he has lost about 10 pounds (4.5 kg) and has noticed some swelling in his lower legs. He has no chest pain, shortness of breath, or changes in bowel habits. His medical history is significant for hypertension, hyperlipidemia, and a recent diagnosis of type 2 diabetes. He is currently on lisinopril, atorvastatin, and metformin. His physical examination shows a heart rate of 98 bpm, blood pressure of 145/90 mmHg, and a respiratory rate of 18. There is mild lower-extremity edema. Laboratory tests show a hemoglobin of 11.5 g/dL, hematocrit of 35%, and a mean corpuscular volume of 105 fL. The serum ferritin is 150 ng/mL, and the serum iron is 150 µg/dL. The total iron-binding capacity is 300 µg/dL, and the transferrin saturation is 50%. The erythrocyte sedimentation rate is 15 mm/h, and the C-reactive protein is 0.5 mg/dL. The patient's renal function is stable, with a serum creatinine of 1.2 mg/dL and an estimated glomerular filtration rate of 60 mL/min/1.73 m<sup>2</sup>.

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