

QUESTION

A 65-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 physical examination is unremarkable, and his laboratory tests show a hemoglobin level of 10 g/dL, a hematocrit of 30%, and a mean corpuscular volume (MCV) of 80 fL. His serum ferritin is 100 ng/mL, and his serum transferrin saturation is 20%. His renal function is stable, with a serum creatinine level of 1.2 mg/dL. What is the most likely cause of his anemia?

- A. Iron deficiency anemia
- B. Vitamin B12 deficiency
- C. Folate deficiency
- D. Anemia of chronic disease
- E. Hemolytic anemia

ANSWER: D

EXPLANATION

The patient's anemia is most likely due to anemia of chronic disease (ACD). ACD is a common cause of anemia in patients with chronic medical conditions, such as hypertension and type 2 diabetes mellitus. The anemia is typically normochromic and normocytic, with a hemoglobin level of 10 g/dL, a hematocrit of 30%, and an MCV of 80 fL. The serum ferritin is elevated (100 ng/mL), and the serum transferrin saturation is low (20%). The renal function is stable, with a serum creatinine level of 1.2 mg/dL. The anemia is not due to iron deficiency, as the serum ferritin is elevated and the serum transferrin saturation is low. It is not due to vitamin B12 or folate deficiency, as the physical examination is unremarkable and the laboratory tests are consistent with ACD. It is not due to hemolytic anemia, as the physical examination is unremarkable and the laboratory tests are consistent with ACD.

ANSWER: A