

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 most recent laboratory tests show a hemoglobin level of 10.5 g/dL, a hematocrit of 32%, and a mean corpuscular volume (MCV) of 85 fL. The patient's renal function is stable, with a serum creatinine level of 1.2 mg/dL. What is the most likely cause of his anemia?

- ANSWER**
 The most likely cause of his anemia is iron deficiency anemia.
- 1. Iron deficiency anemia: This is the most common cause of anemia in this patient. It is characterized by a low hemoglobin level, a low hematocrit, and a low MCV (microcytosis). The patient's symptoms of fatigue and weakness are consistent with iron deficiency anemia.
 - 2. Vitamin B12 deficiency: This is a common cause of anemia, but it is typically associated with a high MCV (macrocytosis) and neurological symptoms such as numbness and tingling in the extremities.
 - 3. Chronic kidney disease: This is a common cause of anemia, but it is typically associated with a normal MCV (normocytosis) and a low serum creatinine level.
 - 4. Hemolytic anemia: This is a less common cause of anemia, but it is typically associated with a high MCV (macrocytosis) and a high reticulocyte count.

ANSWERS

1. Iron deficiency anemia: This is the most common cause of anemia in this patient. It is characterized by a low hemoglobin level, a low hematocrit, and a low MCV (microcytosis). The patient's symptoms of fatigue and weakness are consistent with iron deficiency anemia.

2. Vitamin B12 deficiency: This is a common cause of anemia, but it is typically associated with a high MCV (macrocytosis) and neurological symptoms such as numbness and tingling in the extremities.

3. Chronic kidney disease: This is a common cause of anemia, but it is typically associated with a normal MCV (normocytosis) and a low serum creatinine level.

4. Hemolytic anemia: This is a less common cause of anemia, but it is typically associated with a high MCV (macrocytosis) and a high reticulocyte count.