

### 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 at 130/80 mmHg. Laboratory tests show a hemoglobin of 10 g/dL, hematocrit of 30%, and a mean corpuscular volume (MCV) of 80 fL. The patient's renal function is stable with a 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. 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 (80 fL), and the hemoglobin and hematocrit are low. Iron deficiency is a common cause of anemia in patients with chronic conditions like hypertension and diabetes. The patient's renal function is stable, ruling out chronic kidney disease as the cause. There are no symptoms of vitamin B12 or folate deficiency, and there is no evidence of hemolysis.

### QUESTION

2. A 45-year-old female patient with a long history of rheumatoid arthritis is being treated with chronic low-dose prednisone. She has been experiencing increasing weight gain and a moon face over the past few months. Her blood pressure is 150/90 mmHg. Laboratory tests show a fasting glucose level of 180 mg/dL and a hemoglobin A1c of 8.5%. What is the most likely cause of her hyperglycemia?

- A. Type 2 diabetes mellitus
- B. Type 1 diabetes mellitus
- C. Cushing's syndrome
- D. Pancreatic islet cell tumor
- E. Pheochromocytoma

ANSWER: C

EXPLANATION: The patient's hyperglycemia is most likely due to Cushing's syndrome. The patient is on chronic low-dose prednisone, which can cause Cushing's syndrome. The symptoms of weight gain and moon face are characteristic of Cushing's syndrome. The patient's blood pressure is also elevated, which is another common feature of Cushing's syndrome. There is no evidence of type 1 or type 2 diabetes mellitus, and there are no symptoms of a pheochromocytoma.