

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 reports feeling increasingly fatigued and has noticed some swelling in his lower extremities. His blood pressure is 150/95 mmHg, heart rate is 100 bpm, and oxygen saturation is 96% on room air. Physical examination reveals bilateral lower extremity edema and a clear lung field. Laboratory tests show a serum sodium of 130 mEq/L, serum potassium of 3.5 mEq/L, and a serum creatinine of 1.5 mg/dL. The patient's most recent HbA1c is 8.5%.

ANSWER
 The patient's symptoms and physical findings are consistent with fluid overload, likely due to the combination of hypertension and heart failure. The presence of lower extremity edema and a clear lung field suggests a right-sided heart failure. The patient's blood pressure is significantly elevated, and his heart rate is tachycardic. The laboratory findings, including hyponatremia and a slightly elevated creatinine, further support the diagnosis of heart failure. The patient's HbA1c is also notably elevated, indicating poor glycemic control.

KEY POINTS

- 1. In patients with hypertension and symptoms of heart failure, such as fatigue and lower extremity edema, a thorough evaluation is necessary to identify the underlying cause.
- 2. The combination of hypertension and heart failure can lead to fluid overload, which may manifest as lower extremity edema and tachycardia.
- 3. Laboratory findings, including hyponatremia and an elevated creatinine, can provide additional evidence for the diagnosis of heart failure.
- 4. Poor glycemic control, as indicated by an elevated HbA1c, is a common comorbidity in patients with hypertension and heart failure, and it may contribute to the overall clinical picture.
- 5. Management of heart failure in this patient should focus on optimizing blood pressure control, addressing the underlying heart failure, and ensuring adequate glycemic control.