

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 78 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 132 mEq/L, serum potassium of 3.8 mEq/L, and a serum creatinine of 1.2 mg/dL. The patient's most recent HbA1c is 7.5%.

ANSWER
 The patient's symptoms and physical findings are consistent with fluid overload, likely due to the combination of hypertension and heart failure. The elevated blood pressure (150/95 mmHg) and lower extremity edema suggest a volume overload state. The clear lung fields and normal oxygen saturation indicate that the fluid overload is primarily peripheral rather than pulmonary. The patient's recent diagnosis of type 2 diabetes mellitus and HbA1c of 7.5% suggest that his condition may be complicated by diabetic nephropathy, which can contribute to fluid retention. The normal serum sodium and potassium levels, along with a creatinine of 1.2 mg/dL, suggest that the patient's renal function is currently stable.

CLINICAL PEARLS

In patients with hypertension and diabetes, fluid overload can be a common complication. The combination of these conditions can lead to a volume overload state, which may manifest as peripheral edema and fatigue. It is important to monitor blood pressure and renal function in these patients. The use of diuretics may be necessary to manage fluid overload, but caution should be taken to avoid electrolyte imbalances. The patient's HbA1c of 7.5% suggests that his diabetes is not well controlled, and this may contribute to his symptoms.