

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 150/90 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 1.8 mg/dL. What is the most likely cause of his symptoms?

Option	Answer	Explanation
A. Heart failure	Correct	The patient's symptoms of fatigue and lower-extremity edema, along with the physical findings of bilateral lower-extremity edema and a clear lung field, are consistent with heart failure. The elevated serum creatinine level (1.8 mg/dL) suggests renal impairment, which can be a complication of heart failure. The patient's blood pressure (150/90 mmHg) is also elevated, which is a risk factor for heart failure.
B. Hypertension	Incorrect	While the patient has hypertension, the symptoms and physical findings are not specific for hypertension. The elevated blood pressure (150/90 mmHg) is a risk factor for heart failure.
C. Diabetes mellitus	Incorrect	The patient has type 2 diabetes mellitus, but the symptoms and physical findings are not specific for diabetes. The patient's blood glucose level is not provided.
D. Renal impairment	Incorrect	The patient's serum creatinine level (1.8 mg/dL) is elevated, indicating renal impairment. However, the symptoms and physical findings are not specific for renal impairment. The patient's blood pressure (150/90 mmHg) is also elevated, which is a risk factor for renal impairment.

ANSWER KEY



Option	Answer	Explanation
A. Heart failure	Correct	The patient's symptoms of fatigue and lower-extremity edema, along with the physical findings of bilateral lower-extremity edema and a clear lung field, are consistent with heart failure. The elevated serum creatinine level (1.8 mg/dL) suggests renal impairment, which can be a complication of heart failure. The patient's blood pressure (150/90 mmHg) is also elevated, which is a risk factor for heart failure.
B. Hypertension	Incorrect	While the patient has hypertension, the symptoms and physical findings are not specific for hypertension. The elevated blood pressure (150/90 mmHg) is a risk factor for heart failure.
C. Diabetes mellitus	Incorrect	The patient has type 2 diabetes mellitus, but the symptoms and physical findings are not specific for diabetes. The patient's blood glucose level is not provided.
D. Renal impairment	Incorrect	The patient's serum creatinine level (1.8 mg/dL) is elevated, indicating renal impairment. However, the symptoms and physical findings are not specific for renal impairment. The patient's blood pressure (150/90 mmHg) is also elevated, which is a risk factor for renal impairment.