

**QUESTION**  
 A 65-year-old male patient with a long history of hypertension and hyperlipidemia presents to the clinic with a 2-week history of increasing fatigue, weight loss, and intermittent fevers. He reports that he has been unable to complete his usual activities of daily living. He has no chest pain, shortness of breath, or changes in bowel habits. He has been taking lisinopril and atorvastatin for several years. His last physical examination was 6 months ago, when he was noted to have a normal physical examination.

**ANSWER**  
 The patient's symptoms are concerning for a systemic illness. The most likely diagnosis is a hematologic malignancy, such as multiple myeloma or lymphoma. The patient's symptoms of fatigue, weight loss, and fevers are classic for a systemic illness. The absence of chest pain, shortness of breath, or changes in bowel habits makes a primary lung or gastrointestinal malignancy less likely. The patient's long history of hypertension and hyperlipidemia makes a cardiovascular cause less likely.

**LABORATORY TESTS**

Test	Result	Reference Range
Complete Blood Count (CBC)	Hemoglobin: 10.5 g/dL, Hematocrit: 31%, Platelets: 150,000/mm <sup>3</sup>	Hemoglobin: 13.5-17.5 g/dL, Hematocrit: 39-50%, Platelets: 150,000-450,000/mm <sup>3</sup>
Urea Nitrogen (BUN)	12 mg/dL	7-20 mg/dL
Creatinine	1.1 mg/dL	0.7-1.3 mg/dL
Calcium	8.5 mg/dL	8.8-10.2 mg/dL
Alkaline Phosphatase (ALP)	120 U/L	40-120 U/L
Lactate Dehydrogenase (LDH)	1,200 U/L	100-250 U/L
Procalcitonin	0.1 ng/mL	<0.1 ng/mL
Free Light Chain (FLC)	Abnormal pattern	Normal pattern

## KEY POINTS

The patient's symptoms are concerning for a systemic illness. The most likely diagnosis is a hematologic malignancy, such as multiple myeloma or lymphoma. The patient's symptoms of fatigue, weight loss, and fevers are classic for a systemic illness. The absence of chest pain, shortness of breath, or changes in bowel habits makes a primary lung or gastrointestinal malignancy less likely. The patient's long history of hypertension and hyperlipidemia makes a cardiovascular cause less likely.

The laboratory tests show a hemoglobin level of 10.5 g/dL, a hematocrit of 31%, and a platelet count of 150,000/mm<sup>3</sup>. The urea nitrogen (BUN) is 12 mg/dL, the creatinine is 1.1 mg/dL, the calcium is 8.5 mg/dL, the alkaline phosphatase (ALP) is 120 U/L, and the lactate dehydrogenase (LDH) is 1,200 U/L. The procalcitonin is 0.1 ng/mL, and the free light chain (FLC) test shows an abnormal pattern.

The patient's symptoms and laboratory findings are consistent with a systemic illness, such as multiple myeloma or lymphoma. Further diagnostic testing, including a bone marrow biopsy and imaging studies, is recommended to confirm the diagnosis.