

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 cough, hemoptysis, or chest pain. He has no recent travel, sick contacts, or exposure to animals. He is on lisinopril, atorvastatin, and aspirin. His last laboratory work was within normal limits.

ANSWER
 The patient's symptoms are concerning for a systemic infectious process. The absence of respiratory symptoms and recent travel makes a primary lung infection less likely. The chronicity and systemic nature of the symptoms suggest a diagnosis of tuberculosis (Tb). The patient's risk factors, including age and immunosuppression from long-term use of antihypertensives and statins, increase his susceptibility to Tb. The most common presentation of Tb is a chronic cough, but extrapulmonary disease can occur, often with constitutional symptoms like fatigue, weight loss, and fevers.

Test	Result	Interpretation
Chest X-ray	Normal	Normal chest X-ray does not rule out Tb.
Complete Blood Count (CBC)	Normal	Normal CBC does not rule out Tb.
Erythrocyte Sedimentation Rate (ESR)	45 mm/hr	Elevated ESR is consistent with an inflammatory process.
Tuberculin Skin Test (TST)	10 mm induration	Positive TST suggests exposure to Tb.
Interferon- γ Release Assay (IGRA)	Positive	Positive IGRA is highly specific for Tb.
Sputum AFB1 Smear	3+ positive	Positive sputum smears confirm active Tb.
Sputum Culture	Positive	Positive sputum culture confirms active Tb.

DISCUSSION
 The patient's presentation is classic for active tuberculosis. The diagnosis was confirmed by a positive IGRA and sputum AFB1 smears. The patient should be started on a 6-month course of anti-tubercular therapy (ATT) consisting of isoniazid, rifampin, pyrazinamide, and ethambutol.

CLINICAL PEARLS

1. Consider Tb in patients with chronic fatigue, weight loss, and fevers.

2. A normal chest X-ray does not rule out Tb.

3. A positive IGRA is highly specific for Tb.

4. Active Tb is confirmed by positive sputum AFB1 smears and cultures.

5. Treatment of active Tb requires a 6-month course of ATT.

6. Consider Tb in patients with risk factors for immunosuppression.

7. A positive TST suggests exposure to Tb.

8. An elevated ESR is consistent with an inflammatory process.

9. Normal laboratory work does not rule out Tb.

10. Consider Tb in patients with a long history of hypertension and hyperlipidemia.

11. Consider Tb in patients with a 2-week history of increasing fatigue, weight loss, and intermittent fevers.

12. Consider Tb in patients with no cough, hemoptysis, or chest pain.

13. Consider Tb in patients with no recent travel, sick contacts, or exposure to animals.

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