

# Delayed Recognition of Pulmonary Tuberculosis After Initial Manifestation as Granulomatous Orchitis

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## Background

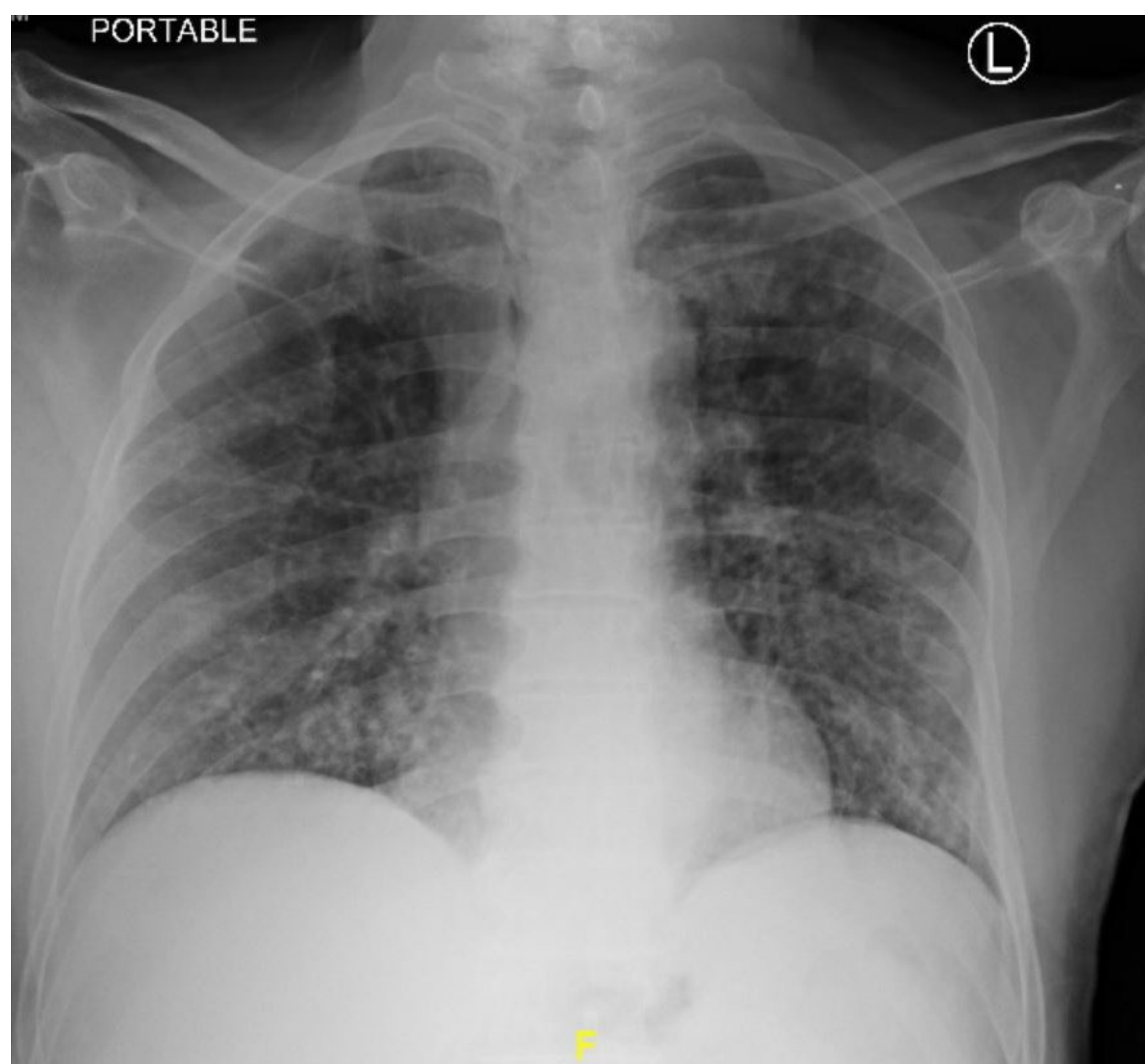
Genitourinary tuberculosis (TB) is the second most common form of extrapulmonary TB and kidneys are affected the most. Genital TB is relatively uncommon and testicular involvement only accounts for 3% of it. Due to its rarity, testicular TB is often mistaken for other more common pathologies such as malignancy and orchitis, delaying the diagnosis of TB.

## Clinical case

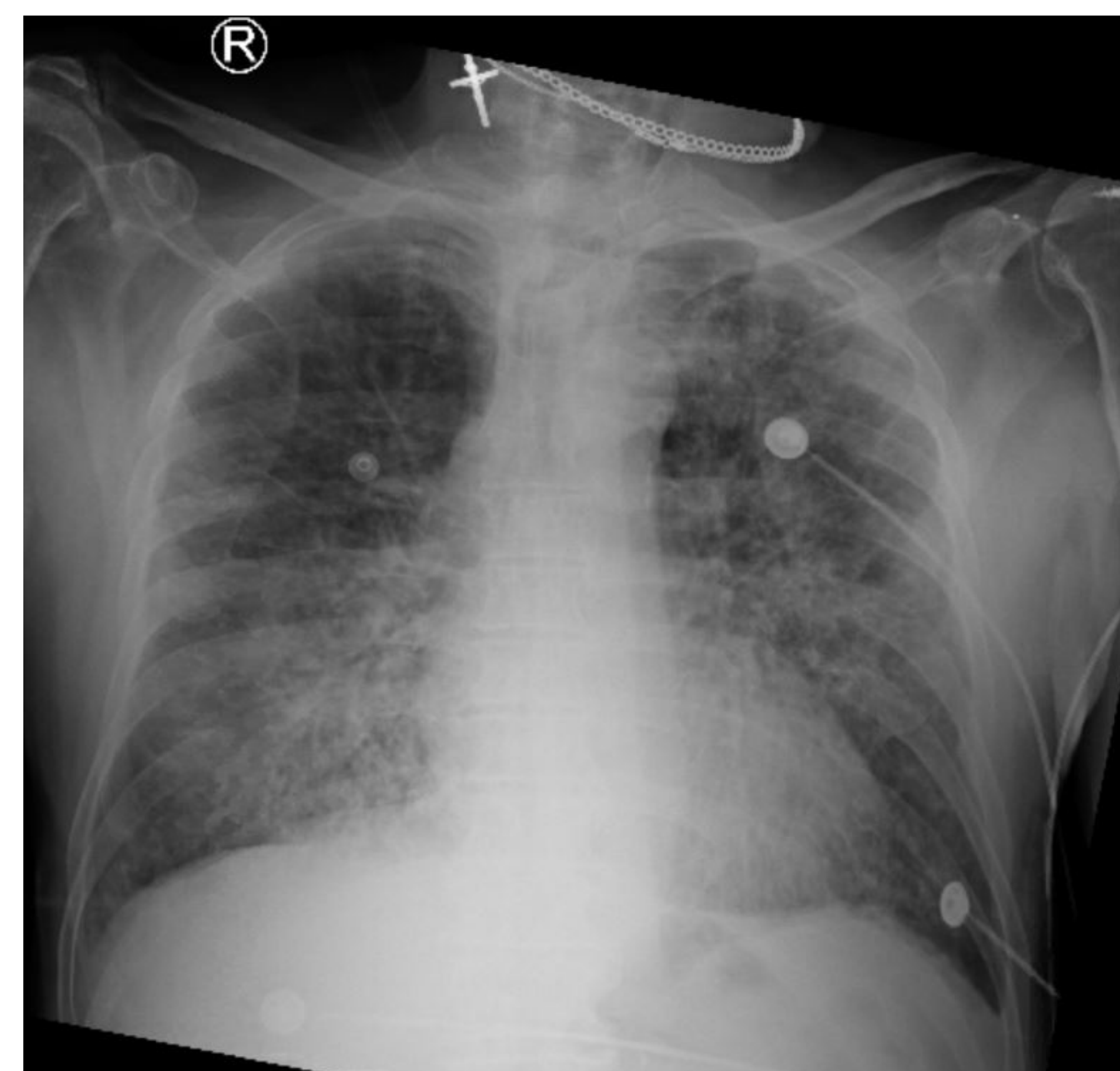
A 79-year-old Guatemalan male with heart failure and coronary artery disease presented with two weeks of left-sided chest pain and dyspnea along with unintentional weight loss and night sweat. Physical exam was notable for diffuse crackles. Chest radiograph found increased bilateral reticulonodular opacities compared to prior imaging. Computed tomography of the chest showed diffuse tree-in-bud and patchy nodular opacities with mediastinal lymphadenopathy and scattered calcified granulomas. Further history revealed that the patient had a painless testicular mass five months prior, which evolved to an abscess requiring treatment with levofloxacin two times. A subsequent orchiectomy was performed and the pathology revealed necrotizing and non-necrotizing granulomas. Cultures were not sent but acid-fast bacilli (AFB) stain was negative. During the current admission, early morning induced sputum was obtained, and it was positive for AFB stain. The patient was started on anti-TB drugs adjusted to his co-morbidities and discharged after improved symptoms. Sputum culture later grew *Mycobacterium tuberculosis* (MTB), sensitive to the prescribed agents.

## Conclusion

This patient with pulmonary TB first presented as granulomatous orchitis most likely due to MTB. Testicular TB presents with a painful or painless scrotal mass and differential diagnosis includes malignancy and orchitis. Testicular cancer was the initial concern in this patient as well since he had a painless scrotal mass with unintentional weight loss. When he later presented with abscess twice, he was empirically treated with levofloxacin. He also reported chest pressure at that time, which likely improved due to partial treatment with antibiotics. Post-orchiectomy pathology was AFB stain negative, but the findings of necrotizing and non-necrotizing granulomas are highly suspicious for TB. The patient's persistent respiratory complaints along with worsening radiographic findings finally led to the diagnosis of pulmonary TB.



← **Figure 1** Initial chest radiograph taken when presented with a testicular mass five months prior. There were bilateral patchy interstitial opacities, most prominent in the lower lungs and left lung apex.



**Figure 2** Chest radiograph taken during this admission showing increased reticular opacities within bilateral lower lobes, the left lung apex, and the right upper lobe. →

## References

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