CASE REPORT

82. Tuberculous Aortitis Masquerading as Takayasu Arteritis: A Diagnostic Tightrope in a TB-Endemic Region

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Background: Tuberculous aortitis is an exceptionally rare extrapulmonary manifestation of Mycobacterium tuberculosis, most often seen in TB-endemic areas. It typically presents with nonspecific symptoms and may closely mimic primary large-vessel vasculitis, particularly Takayasu arteritis. Differentiating between infectious and autoimmune causes of aortitis is critical, as the management pathways diverge significantly namely, anti-tubercular therapy (ATT) versus immunosuppression. This case illustrates the diagnostic complexity and clinical decision-making involved in distinguishing between the two in a high-risk patient.

Case Presentation: A 50-year-old woman with a background of hypertension, type 2 diabetes mellitus, chronic atherosclerotic disease, and bilateral renal artery stenosis presented with a two-day history of vomiting and blurring of vision. She had no history of fever, claudication, stroke, postprandial pain, or chest discomfort.

On examination, she had a striking discrepancy in blood pressure: 160/80 mmHg in the upper limbs and 80/50 mmHg in the lower limbs. Neurological and systemic examinations were otherwise unremarkable. Initial investigations revealed serum sodium of 119 mmol/L, creatinine of 1.5 mg/dL, and CRP of 21.6 mg/L. ANA was positive, while cANCA and pANCA were negative. CT brain showed chronic right parietal lacunar infarct.

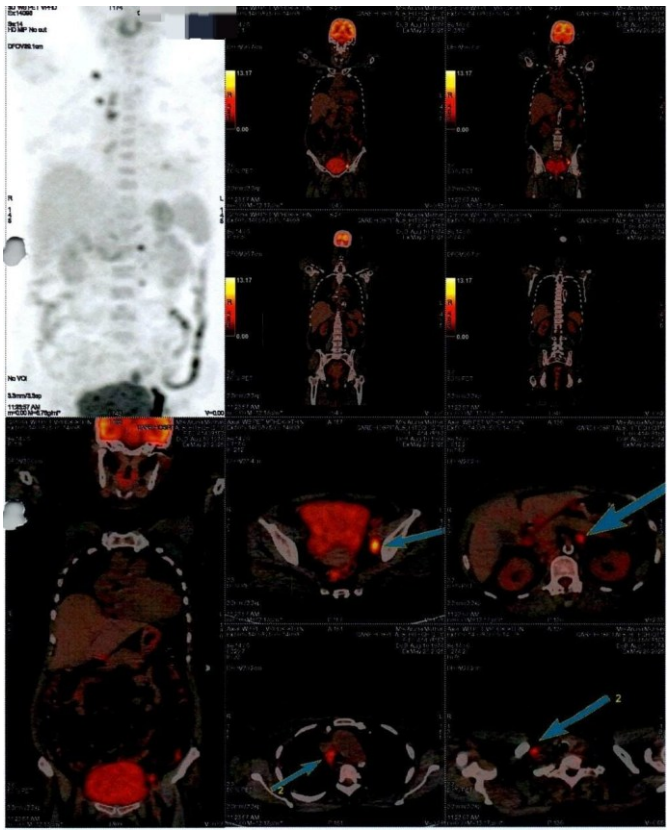
A CT aortogram revealed severe narrowing of the descending thoracic and abdominal aorta with >90% stenosis of the coeliac artery, moderate superior mesenteric artery stenosis, and one-third occlusion of the left posterior tibial artery. These findings raised strong suspicion for Takayasu arteritis.

However, PET-CT demonstrated metabolically active supraclavicular lymphadenopathy, and Mantoux testing was strongly positive. ESR and CRP showed a rising trend. While a lymph node biopsy was planned, general surgery deemed it inaccessible for sampling at the time. The patient had no systemic features suggestive of autoimmune vasculitis but did meet multiple criteria for large-vessel involvement with TB-related inflammatory markers and imaging findings. Given the constellation of features and the TB-endemic context, a presumptive diagnosis of tuberculous aortitis was made.

Conclusion: This case highlights the diagnostic challenge of differentiating tuberculous aortitis from Takayasu arteritis, particularly in regions where tuberculosis is endemic. Radiological findings alone may be insufficient, as both conditions can involve extensive aortic and branch vessel narrowing. In such cases, adjunctive investigations—such as Mantoux testing, PET-CT imaging, inflammatory markers, and careful exclusion of systemic autoimmune features—are critical in guiding diagnosis and therapy.

Timely recognition of tuberculous aortitis is vital to prevent inappropriate immunosuppression and its complications. Empirical initiation of ATT in clinically suggestive cases, even in the absence of histopathological confirmation, may be justified in high-burden settings when biopsy is not feasible. Clinicians must maintain a high index of suspicion and adopt a multidisciplinary approach to navigate such diagnostic tightropes.

***Figure 1*:** PET Scan Demonstrating Metabolically Active lymph Nodes.



Legend: She was initiated on empirical anti-tubercular therapy (ATT) on discharge, with close outpatient follow-up arranged.

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