Misdiagnosed sternoclavicular tuberculosis presenting as a non-healing ulcer

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DESCRIPTION

Even in endemic areas, the sternoclavicular joint (SCJ) is a rare site for tuberculosis (TB), with reported rates of only 1%–2%..

This rarity, accompanied by non-specific symptoms, minimal clinical signs, and complexity in interpreting the X-rays, causes many cases to be missed. Misdiagnosis leads to the impediment of proper treatment, further complicating the situation. We describe a case of SCJ TB that was drained, suspecting a pyogenic abscess. Histopathological confirmation of TB and initiation of antitubercular drugs led to complete resolution of the non-healing ulcer.

A 54-year-old woman presented with a painless ulcer over the medial end of the right-side clavicle with extension to the SCJ of 1 month duration (figure 1A). She developed this ulcer after incision and drainage of a painless swelling over the upper part of the right chest and neck. The swelling, which she noticed about 3 months back, progressed gradually to involve the right sternoclavicular area, extending to the right supraclavicular and infraclavicular area. There was no history of trauma or associated pain. Constitutional symptoms like fever, loss of appetite and weight loss were also absent. She denied a history of TB and close contact. She associated pain. Constitutional symptoms like fever, loss of appetite and weight loss were also absent.

The treating physician did not perform a tubercular culture. Both the MRI and CT scan revealed an indurated base with purulent discharge (lacking inflammation), painless/pain referred to shoulder, and rarely a sinus/ulcer. Hence, a high index of suspicion is paramount for early diagnosis and treatment. Negative laboratory reports are still a component of multicentric TB. It is unilateral in presentation and only rarely is a combination of adjoining lungs as proposed by Yasuda et al. Most of the time, there is delayed diagnosis or a misdiagnosis. The mean delay in diagnosis in a study by Meena et al was found to be 6 months. This can be attributed to the scarcity of symptoms, lack of clinical findings and difficulty interpreting plain radiographs. Occasionally, swelling is ‘cold’ (lacking inflammation), painless/pain referred to shoulder, and rarely a sinus/ulcer. Hence, a high index of suspicion is paramount for early diagnosis and treatment. Negative laboratory reports from the aspirate suggested a diagnosis other than TB. Only a bone biopsy could prove the diagnosis. Prakash et al advised an early MRI in patients with tenderness or swelling of 3 weeks duration in their series. They also noted favourable outcomes with treatment when the ATT was started early (<8 weeks).

Late diagnosis can lead to ulceration/sinus formation. A more dreaded complication could be an erosion of vessels at the base of the neck or a mediastinal abscess. Unfamiliarity with the disease...
can lead to misdiagnoses and errors in treatment, which led to chronic ulceration, as in our case. Inadequate response to antibiotic therapy should lead to suspicion of underlying TB, particularly in endemic areas. Although the treating physician added a second-line antitubercular drug, linezolid, empirically, the medication was continued alone for 2 weeks. The patients should ideally be treated with first-line antitubercular drugs. The second-line drugs are reserved for resistant TB. Given poor elucidation of plain X-ray, authors have used a CT or an MRI to locate a pathology, especially in the early stages. Articular damage and abscess formation are better visualised on MRI. Definitive diagnosis can be made by isolating mycobacteria or confirmation with gene expert and histopathological findings.

The common differential diagnosis of SC joint TB is Treitz syndrome, sternoclavicular hyperostosis, condensing osteitis, low-grade pyogenic infection, rheumatoid arthritis, myeloma and secondary deposits. Non-healing ulcers unresponsive to standard antibiotics could also include Buruli ulcer, which would mimic the histology findings but unlikely in the Indian subcontinent or cutaneous leishmaniasis (would fit with geographical location but not histology). Treatment is conservative in the form of ATT. However, surgical debridement may be required in patients not responding to conservative trials. In refractory cases, end-bloc resection can be carried out.

**Learning points**

- Sternoclavicular tuberculosis is a rare presentation of osteoarticular tuberculosis requiring a high index of suspicion for diagnosis and treatment.
- Typical symptoms and signs of tuberculosis may be absent in sternoclavicular tuberculosis. Evaluation with MRI/CT is recommended for early diagnosis.
- Tissue biopsy from the involved bony segment can help to reach the diagnosis in a difficult situation.

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