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Atypical presentation of spinal tuberculosis

Wettasingha AU [1], De Silva K [2]

[1]Senior Registrar in Rheumatology and Rehabilitation

[2]Consultant in Rheumatology and Rehabilitation

Teaching Hospital- Colombo South.

Background

Tuberculosis is a major cause of mortality and morbidity in developing countries including Sri Lanka. Spinal tuberculosis accounts for 15% of all tuberculosis cases. The classic clinical features of spinal tuberculosis include local spinal pain, tenderness and muscle stiffness. Constitutional symptoms can only be seen in 1/3 of patients. The mean symptom duration before diagnosis can be longer and can extend up to 11 months. Early diagnosis and treatment is extremely crucial. Otherwise it can results in permanent neurological sequel such as paraplegia.

Case report

We present a 45-year-old previously healthy male, who presented with a mid-thoracic inflammatory back pain with severe rest pain and nocturnal pain for one month duration. Pain was radiating to the posterior chest wall and was not responding to non-steroidal anti-inflammatory drugs. He had no constitutional symptoms. Examination of spine revealed a tenderness at mid thoracic level and posterior chest wall. There was no neurological weakness.

Investigations revealed a high erythrocyte sedimentation rate (ESR) and a C- reactive protein (CRP). Both thoraco-lumbar spine and chest x rays were normal. Mantoux test was negative. However, contrast enhanced computer tomography (CT) film revealed adjacent end plate destruction at T7/T8 vertebral level with associated enhancing paravertebral soft tissue thickening and epidural involvement; features more suggestive of spinal tuberculosis. He underwent CT guided biopsy which revealed a mixed inflammatory lesion with ill-defined collection of histiocytes and foreign body type multinucleated giant cells focally with no features of malignancy. Samples were sent for tuberculosis culture.

Diagnosis of spinal tuberculosis was made and the patient was commenced on anti-tuberculosis treatment based on the history and investigation findings. Patient had a significant clinical and

biochemical improvement of following the treatment commencement.

Conclusion

Clinical presentations of spinal tuberculosis can be variable. Constitutional symptoms can only be seen in about 30% of patients, hence in high-risk endemic areas spinal tuberculosis should be considered in the differential diagnosis even in the absence of above. Delays in diagnosis and commencement of anti-tuberculosis therapy can lead to drastic outcomes such as paraplegia. Hence the clinician must be vigilant on atypical presentations.