

## A Rare Case of Thoracic Spine Giant Cell Tumor Mimicking as Spinal Tuberculosis – A Case Report

<sup>1</sup>Munira Masri, <sup>1</sup>Marazuki Perwira, <sup>1</sup>Daniel Djamalludin, <sup>1</sup>Bong Chin Pei  
Department of Orthopaedic and Trauma Surgery, Tengku Ampuan Afzan Hospital,  
25100, Kuantan, Pahang, Malaysia.

### INTRODUCTION:

Giant cell tumor (GCT) of the bone most commonly occurs in the long bones near articulations. Spinal GCT comprises less than 5% of primary bone tumors in the spine mainly manifest in sacrum. However, we reported a case of thoracic GCT of the thoracic spine which was clinically diagnosed as spinal tuberculosis.

### REPORT:

A case of 33 years old lady presented with lower back pain for 6 months with gradually worsening bilateral lower limb weakness within 1 month. Otherwise, no bowel and urinary incontinence, no constitutional and TB symptoms. On clinical examination, tenderness present at thoracolumbar region and neurological examination revealed ASIA C neurology. Plain radiograph shows T11 vertebra plana associated with kyphosis deformity. Blood parameters showed slight raised in infective markers and normal tumor markers. Tuberculosis screening was not significant with negative blood culture. MRI demonstrated T11 vertebra plana with adjacent paraspinal collection complicated with gibbus deformity and nerve root compression (Figure 1), hence TB spine diagnosis was postulated and patient was started empirically with anti-TB medications.

Patient underwent Posterior Spinal Instrumentation and Fusion of T8-L2, Laminectomy of T10-T12 Costotransversectomy and Transpedicular Debridement T11 with Cage Insertion (Figure 2). Intraoperative findings revealed caseous material with unhealthy bone over bilateral transverse process of T11 till anterior body.



Figure 1

Figure 2

However, histopathology examination revealed multinucleated giant cells with presence of mononuclear cells. A revised diagnosis of Giant Cell Tumor of Thoracic Spine was then established. She is currently ambulating independently at 6 months with no recurrence detected and improvement to ASIA E neurology. Patient need serial MRI and CT to review the progress of disease and recurrence.

### CONCLUSION:

Although Spine GCT is rare, it may be a potential presenting illness mimics as spinal tuberculosis. Total resection at an early stage remains the best treatment strategy with a low recurrence rate. Recently, Denosumab may be used as an adjuvant by which to avoid or reduce the risks and morbidity of surgical treatment.

### REFERENCES:

1. Luther, N., Bilsky, M.H. and Härtl, R., 2008. Giant cell tumor of the spine. *Neurosurgery Clinics of North America*, 19(1), pp.49-55.