

## Giant Cell Tumor Of The Spine: A Case Report

Maniventhan N, Manoharan K, Zulkifli A, Zairul A.K

Orthopaedic Department, Hospital Raja Permaisuri Bainun, Jalan Raja Ashman Shah, 30450, Ipoh, Malaysia.

### INTRODUCTION:

Almost 200 years ago, Sir Astley Cooper first described osteoclastomas, now called giant cell tumor of bone (GCT). GCTs is cited as the most aggressive benign tumor of the spine with unpredictable outcome<sup>1</sup>. Although deemed benign, GCTs is reported to have tendency for significant bone destruction, local recurrence, and occasionally metastasis. It typically occurs in long bones and infrequently in the spine<sup>2</sup>. Often it is misinterpreted as TB spine due to its clinical and radiological presentation. Presenting here is a case of a 19 years old Orang Asli teenager, with giant cell tumor of the spine.

### CASE REPORT

A 19 years old Orang Asli girl was presented to us in May 2016 with initial suspicion of TB spine with paraplegia. She claims started as weakness of bilateral lower limbs since October 2015, gradually worsening until she had lost functions of her bilateral lower limbs together with bowel and bladder incontinence from March 2016. Developing bilateral gluteal sores, she was only brought to a district hospital in May 2016, where thoraco-lumbar x-ray revealed T10 vertebra plana and was subsequently referred for further management. Neurological assessment revealed her bilateral lower limbs power 0/5, sensation reduce from T10-T12 and absent L1 and below, elicited hyperreflexia, Babinski sign present. X ray showed T10 vertebra plana and MRI revealed marrow replacement T9 and T11, anterior calcified paraspinal mass, narrowing of spinal canal (0.4cm in AP diameter) and spinal cord compression. With the clinical and radiological investigation suggesting TB spine, we proceeded for decompression, posterior instrumentation and biopsy. Noted intraoperatively, a flesh like material at T10 mainly over the left side was identified encroaching the spinal canal causing stenosis. Post-operative course was uneventful, and patient's neurology remained the same. Histopathological study of sent sample showed

bony tissue infiltrated by proliferated round to ovoid mononuclear cells evenly mixed with numerous giant cells, with the monocytes being **CD68**-positive thus suggesting GCT<sup>3</sup>.



MRI film of the Thoracic spine



Post-operative lateral view X ray- posterior instrumentation from level T8-T12

### DISCUSSIONS:

Giant cell tumor in the spine is a relatively rare. Spinal GCTs most commonly present with expansile lesion with or without vertebral collapse and spinal instability. This often gets compounded by neurological deficit due to encroachment onto the spinal canal. Radiologically, GCTs of the spine present as cystic lesions in x rays. Soft tissue outside the cyst is often seen on MRI scans and seems to suggest local aggression. This soft tissue could be misinterpreted as infection such as TB<sup>4</sup>. This holds true for this case.

### REFERENCES: .

1. Abhay Nene, Indian Journal of Orthopaedics. 2007 Apr-Jun; 41(2); 146–150
2. Tony Goldschlager, J Neurosurg Spine 22:526–533, 2015
3. Golding SR, J Clin Invest. 987;79:483–491
4. Karuna Jha, IJHAS. 2016 ; 5(4) ; 284-287