He Came In Wheels, Walked Out In Heels

Abd Jabar F, Zainal Abidin NA
Orthopaedic Department, Hospital Kuala Lumpur

INTRODUCTION:
Aneurysmal bone cyst is a benign, relatively uncommon lesion, representing 1.4% of primary bone tumors. The vertebral column is involved in 3–30% of cases. We present one rare case of ABC involving the thoracic spine in a young patient which was successfully treated with surgery.

MATERIAL AND METHOD:
A 17 year old boy presented with progressive bilateral lower limb weakness for 2 months, together with numbness and shooting pain radiating from hip to bilateral lower limb which aggravates more at night. Upon examination, there is tenderness at midthoracic spine. He has reduced power bilaterally and reduced sensations below T10 dermatome level. MRI of the thoracic spine revealed extramedullary extradural T4 vertebral mass involving vertebral body, pedicle and lamina. A computed tomography scan of the whole spine (Figure 1,2) demonstrated an irregular lytic lesion at left pedicle of T4 involving the vertebral body, lamina and transverse process, eroding the bony cortex of T4 vertebrae.

An open biopsy was done subsequently. Intraoperatively, there is a highly vascularized mass at T4 which erodes and deformed the laminae. Histopathology showed proliferation of bland spindle shape cells with scattered, multinucleated, osteoclast-type giant cells with areas of hemorrhage, favouring aneurysmal bone cyst.

We performed posterior spinal instrumentation of T2 to T6 and laminectomy of T4 with cage and bone cement insertion. The tumor was excised completely.

RESULT:
Postoperatively, he was immobilized in Jewett brace for 6 months. He recovered back his muscle power fully postoperatively and discharged home with wheelchair. At 6 month follow up, he was able to walk without any aids and denied any episodes of weakness or numbness.

DISCUSSION:
The optimal treatment of aneurysmal bone cysts of the spine remains controversial. Treatment options for aneurysmal bone cysts have included simple curettage with or without bone grafting, complete excision, embolisation, radiation therapy or a combination of these modalities.

CONCLUSIONS:
Early diagnosis and appropriate surgical treatment of aneurysmal bone cysts in the spine remain the key factors to successful management.

REFERENCES:
1. Ruiter DJ, Van Rijssel TG, Van Der Velde EA. Aneurysmal bone cysts: a clinicopathological study of 105 cases.