Chondroblastoma: Mimicking Malignant Bone Tumour

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INTRODUCTION:

Chondroblastoma accounts for 1% of all primary bone tumour, commonly seen in skeletally immature adolescence during active epiphyseal growth. Although this is group under benign entity, it often demonstrates features of aggressiveness, with ability to incite extensive soft tissue inflammation and extensive marrow change. Malignant chondroblastoma is clearly elucidated in the literature. [1,2]

METHODS:

Five cases of Chondroblastoma presented to University Malaya Medical Center between 2011 and 2014 were reported. Demographic characteristic, clinical presentation, radiographic findings and management were summarized in table below.

RESULTS:

No	Age sex	Clinical	Site	Radiographic stage	Treatment
1	13, M	Left popliteal pain & inability to extend knee for 16 months	Posterior aspect of left lateral femoral condyle	Aggressive	Curretage
2	12, F	Left knee pain and inability to extend the knee for 18 months	Left lateral femoral condyle	Aggressive with cortical breakage and extensive marrow involvement	Curretage and autologous bone grafting
3	14, F	Right hip pain and swelling	Right acetabu-lum	Aggressive, cortical breakage	Wide excision, excision arthroplasty
4	26, F	Right knee pain for 6 months	Right lateral femoral condyle	Active	Curretage, autologous bone graft and cement
5	16, M	Right shoulder pain	Right proximal humerus	Active	Curretage, cement

All cases showed the aggressiveness of this benign Chondroblastoma to incite extensive soft tissue involvement.

DISCUSSIONS:

"Benign Chondroblastoma" was first described as a distinct entry in 1942. Usual presentation is protracted pain, restricted range of motion and flexion deformity. The tumour is well-defined lesion, eccentrically located in epiphysis, bulge out the cortex, mostly without periosteal reaction. Microscopic pathology often shows round chondroblast-like cell, with multinuclear giant cells. Calcification resembles "chicken wire". Treatment include intralesional curettage, with or without bone grafting or polymethylmethacrylate, endoprosthesis replacement, radiofrequency ablation, and amputation for aggressive or recurrence chondroblastoma. The recurrence rate after these procedures has been reported from 10% to 35%.[1] Metastatic or malignant chondroblastoma after local recurrence has been reported in previous literature.

CONCLUSION:

There is no role of conservative management in this disease entity because of the aggressiveness and the morbidity caused by the lesion. Chondroblastoma may mimic malignant bone tumour. Biopsy result and clinical judgments must be carefully interpreted so that chondroblastic osteosarcoma will not be missed.

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