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Case Report

A Case Report: A Case of Osteoclastoma of Head and Neck of Femur

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Abstract

28 years old male patient complaining of pain in left hip on x ray expansile eccentric lobulated lesion in epiphysio-metaphyseal region. bone biopsy done elsewhere osteoclatoma. Excision of head and neck advised elsewhere, tried curettage with bonegraft cancellous and fibular strut and reinforcing cancellous screw was done. Histopathology proved Osteoclastoma. Full range of movements with full - weight bearing, back to work no recurrence at 2 years.

Keywords: Osteoclastoma; Head and Neck

Background

Osteoclastoma may be locally malignant and also may threaten to be recurrent. A choice of excision with reconstruction v/s curettage with bone grafting was crucial. Patient being young later decision was implemented.

Case presentation

A 28 years old gentleman, a manual labourer had pain in his hip in January 2018 with inability to walk and restricted range of movements of left Hip. X ray and MRI done in March 2018 showed "Well defined T1 isointense. T2 stir heterogeneously hyperintense, eccentric expansile, lytic lesion measuring 3.8 AP, 3.5 Mediolateral and 6.7 Craniocaudal noted in epiphysiometaphyseal region of Left Proximal Femur on the medial aspect. Lesion had lobulated appearance with involvement of articular margin."

Figure 1

Figure 2

Figure 3

Figure 4

A bone biopsy report on 28th March, 2018 "Section reveal a tumour composed of sheet of mononuclear spindle cells admixed with many multinucleated Giant Cells of Osteoclastic type, latter distributed throughout the lesion. The nuclei of spindle cells do not reveal cytologic atypia. Bone biopsy from Head of Left Femur-Giant Cell Tumour."

Management

Patient was reluctant in getting excision with reconstruction and agreed for curettage with bone grafting using a strut from fibula as well. Although the articular margins were breached a surgery was performed with thorough curettage with bone grafting and Fubular strut as a mechanical support and lot of corticocancellous and cancellous bone grafts from posterior iliac bones were harvested and grafted. It seemed to be prone to fracture in neck of Femur region hence a Cancellous 6.5 mm Screw was passed proximally premptively.

Figure 5

Figure 6: The cavity in head and neck of left Femur curetted thoroughly.

Figure 7: Copious Corticocancellous and cancellous Bone Grafts along with appropriate Fibular Strut was done.

Figure 8: Intraoperative AP.

Figure 9: Intraoperative Lateral.

The Histopathology Report "Sections show a giant cell tumour composed of diffusely arranged mononuclear short spindle cells admixed with many osteoclastic type multinucleated giant cells distributed throughout the lesion. Cosistent with Giant Cell Tumour.

Patient was kept non- weightbearing for 3 months but mobilization in bed was started immediately.

Patient achieved full range of pain-free movements by 4 weeks and painfree weightbearing by 4 months.

Figure 10: Year follow up AP

Figure 11: 1 Year Follow up Lateral.

Figure 12: 20 Months Follow Up Ap.

Figure 13: 20 Months Follow Up Lateral.

At 20 months the articular margin also has become congruous. Patient back to his job as manual labourer. Full weight bearing with full range of movements and no recurrence.

Discussion

(1) The giant cell tumour of bone (GCTB), also known as an Osteoclastoma or a myeloid sarcoma, is a benign local aggressive osteolytic neoplasm that primarily affects skeletally mature young adults [1]. These usually arise in the metaphysis and extend into the epiphysis of long bones. While most GCTB are benign, they rarely metastasize to the lungs. Clinically their behavior can be unpredictable. A histopathological exam is needed to confirm the diagnosis. Imaging of the primary site with plain films and CT/MRI when joint involvement is suspected, is the recommended diagnostic approach. A chest CT or chest X-ray is also recommended to evaluate for metastases to the lungs [2]. Treatment is usually curettage or wide resection, with typically a good prognosis. Rarely GCTB can under malignant transformation. These may be primary or secondary [3]. Primary typically occurs adjacent to the benign GCTB while the secondary occurs at the site of treatment (usually radiation therapy). Malignant GCTB has a poor prognosis [4]. In this particular patient the joint margins were involved so it was a critical decision to save the joint. The patient was not willing for resection so with guarded prognosis of chance of recurrence the curettage and bone graftion also using fibular strut was done.

We will wait for further follow up. Till then the patient is doing well and we will lookout for recurrence or malignant or metastatic changes.

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