Chondroblastoma Of Patella With Associated Aneurysmal Bone Cyst: A Common Finding Among The Rare Primary Patella Tumors

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INTRODUCTION:

Primary tumors in patella are a rare occurrence, accounting for 0.12% of all primary bone tumors. Chondroblastoma of patella is the most common benign condition among all the rare primary intra-osseous lesions of the patella. The association of chondroblastoma with secondary aneurysmal bone cyst is well recognized.

METHODS AND RESULTS:

A young lady (26-year-old) presented with post traumatic knee pain, six months after the initial diagnosis of inferior pole fracture which was managed conservatively with a cylinder cast in full extension in a local clinic. She had persistent pain and a reduced range of motion.

Physical examination showed fullness over the inferior pole of patella with local tenderness. The affected knee range of motion was reduced by 20 degrees compared to the contralateral side.

X-Ray studies, initially suggested non - union of inferior pole patella, but it was later reported as cystic change in the inferior pole of patella. MRI was then undertaken, which subsequently showed features of bone cyst with possible differential diagnosis of simple bone cyst, aneurysmal bone cyst or a giant cell tumor.

Intralesional curettage was then done, after which the sample was sent for histopathological analysis. The histopathological analysis was reported as suggestive of chondroblastoma with secondary aneurysmal bone cyst.

On her recent follow up at five months post-op, there was a significant reduction in pain radiograph showing bone union and no signs of recurrence.

The authors also reviewed cases of patellar chondroblastoma with emphasis on its association with secondary aneurysmal bone cyst. PubMed database and Google scholar was used for the literature review.

DISCUSSION:

Patella is rare location for development of tumor. Benign tumors are more common than malignant tumor of patella. Chondroblastoma and Giant cell tumor combined makes half of the primary tumors of patella. Chondroblastoma is a benign cartilaginous tumor that usually is seen in epiphyses of tubular long bone in population age 10 to 30 years old. Secondary aneurysmal bone cyst following chondroblastoma is a recognized entity in upto 15% of the patients. This case would be the 17th case of chondroblastoma with secondary aneurysmal bone cyst occurring at patella and 7th such case among female population. The treatment option of chondroblastoma and aneurysmal bone cyst vary according to the tumor location and size. Most surgeons choose to local resection and curettage of the lesion and filling the cavity with bone graft or polymethyl methacrylate cement. Better results are reported with use of bone graft.

The recurrence rate for chondroblastoma is 8% to 20% and when associated with aneurysmal bone cyst, the rate is higher reaching up to 30%.

CONCLUSION:

Chondroblastoma associated with aneurysmal bone cyst is a common occurrence among the population. However, patella is rare site for this tumor. Patellectomy or curettage, with or without bone grafting, are both equally viable options for the treatment of this lesion.

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