

A Rare Presentation Of Isolated Traumatic Osteochondral Fracture Of Medial Facet Of Patella

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INTRODUCTION:

Osteochondral fractures are relatively common in acute patellar dislocation, with a reported incidence of 5% to 75%. They are frequently missed or misinterpreted in initial radiograph. Accurate diagnosis is essential as surgical intervention is warranted in such cases.

CASE DESCRIPTION:

We report a previously healthy 16 year-old lady, who suffered a fall while walking that caused direct trauma to the left knee in flexed position. The patient's condition evolved rapidly, with pain, swelling and incapacity to walk. Physical examination revealed a swollen left knee, and held in full extension. There was diffuse tenderness in the knee joint. The patella was not displaced on palpation. Patellar tap was positive.

Anteroposterior & lateral radiographs of her knee revealed a small bony fragment lodged beside the lateral femoral condyle. CT scan showed fracture of medial patellar facet with knee haemarthrosis. The physical examination conducted in conjunction with the imaging studies confirmed the diagnosis of acute dislocation of the patella and presence of a free body from the joint, located near to lateral femoral condyle.

The surgery was performed five days after hospital admission. Intraoperative findings revealed a 4x3cm osteochondral fragment with intact medial patellofemoral ligament and medial retinaculum. The surgical technique used consisted of open reduction and osteosynthesis with two 2.7-mm cortical metal screws in the osteochondral fragment of the patella. Patient recovered well with complete range of motion and able to ambulate independently

DISCUSSIONS:

Literature has reported that fracture of medial patellar facet is the most common area of patellar osteochondral fracture, with a mean

age of 13.3 years. At times, osteochondral fragments subsequent to dislocation of the patella may go unnoticed on radiographs of the knee. Hence, computed tomography (CT) scans should be done in order to understand the injury better. MRI would be the ideal investigation of choice to best assess the soft tissues of the knee.

Treatment success depends on early diagnosis of the osteochondral fragment and appropriate surgical approach. Medial arthrotomy was the best surgical approach because of the location of the osteochondral fragment and the ability to view the medial patellofemoral ligament.



Figure 1: Intraoperative photograph showing fracture morphology and completed osteosynthesis

CONCLUSION:

Patellar osteochondral fracture among adolescent and young adults resulting from a trivial knee trauma should be kept in mind. CT scan is an extremely useful adjunct to further delineate the fracture morphology. Open surgical reduction & fixation are preferred in order to obtain joint surface congruity.

REFERENCE:

1. Rorabeck CH et al., J Bone Joint Surg Br 1976;58:237-40.