



MANAGEMENT OF A CASE OF ISOLATED MEDIAL CONDYLE FEMUR FRACTURE IN A 65 YEARS OLD MALE WITH EXCELLENT FUNCTIONAL OUTCOME : CASE REPORT

Orthopaedics

Dr Saptarshi Mukherjee*

PGT, Calcutta National Medical College And Hospital. *Corresponding Author

Dr Gourab Bose

PGT, Calcutta National Medical College and Hospital.

ABSTRACT

Isolated medial condyle femur fracture without fracture of the lateral condyle is relatively rare entity. Unlike lateral femoral condyle, there is no anatomically contoured plate available for the medial condyle fixation. A 65 years old male presented to us with isolated medial condyle femur fracture. ORIF was done with cannulated cancellous screws and reconstruction plate. Post-operative early range of motion was started and the patient had full range of motion at the final one-year follow-up.

KEYWORDS

Medial condyle femur fracture, ORIF, cannulated cancellous screws, reconstruction plate, early range of motion exercises.

BACKGROUND :

Distal femoral fractures are mainly high velocity injuries. Medial condyle can be involved as a part of comminuted intra articular distal femoral fractures. But isolated medial condyle fracture is rare. According to AO classification system, medial condyle femur fracture is being classified as 33-B2. Because of the proximity of the fracture to the knee joint, regaining full knee range of motion and function may be difficult specially in extremes of age. Here we present a case of isolated medial condyle femur fracture in a 65 years old male, managed by open reduction and internal fixation with cancellous cannulated screws and reconstruction plate.

Case Presentation:

A 65 years old male presented with left knee pain and swelling following a road traffic accident. On local examination, there was swelling and tenderness over medial aspect of the knee and no neurovascular deficit was present. Digital x-ray of left knee anteroposterior and lateral view was advised. It showed isolated intra-articular medial condyle fracture AO classification (33 B2). Long leg slab was done for temporary stabilisation. The patient got admitted to our hospital and open reduction internal fixation was planned. Computed tomography of the left knee was advised for better understanding of the fracture morphology and operative planning.



Fig 1: Plain Radiography Shows Medial Condyle Fracture With Intra-articular Extension



Fig 2: Computed Tomography Shows Medial Condyle Fracture Femur With Intra-articular Extension

On the day of surgery, patient was put in supine position with a bolster under the knee. anteromedial approach was done to get access to the fracture site. Anatomical restoration of the joint surface was achieved using reduction clamps and held with temporary k wires. Two cancellous cannulated screws with washer and one full thread cancellous screw were given to compress the intercondylar fragment. One 6 hole 4.5mm reconstruction plate given as a buttress plate and fixed with 4 cortical screws.



Fig3: Post-operative Radiograph Shows Anatomical Restoration Of Articular Surface

Post-operative period was uneventful. Passive range of motion exercises was advised from day one. Active exercises was started from post-operative day 3 after subsidence of swelling. Quadriceps and hamstring exercises were also started from day 3. Patient was kept non-weight bearing for the first 4 weeks followed by toe touch weight bearing. Partial weight bearing was started from 8 weeks and full weight bearing was advised from 12 weeks onwards. At one year follow-up, patient had full range of motion of the knee, could sit cross legged, squat and walk painlessly.



Fig 4: Range Of Movement At The Final One Year Follow-up



Fig 5: One Year Follow-up Radiograph Shows Union Of The Fracture Site

DISCUSSION:

Distal femoral fractures are relatively common injuries and present considerable challenges in management. During the past 40 years, operative techniques and implants have dramatically improved and internal fixation been recommended for most of the displaced distal femoral fractures. Isolated medial femoral condyle fracture with intact lateral femoral condyle is extremely rare. It happens due to direct impact on the flexed knee during weight bearing. Displaced fractures need surgical fixation to prevent complications of axial malalignment, post-traumatic arthritis, knee stiffness frequently reported with nonoperative management. Cancellous lag screws provide sufficient fixation to provide early range of motion but in cases of old osteoporotic bone a buttress plate may be necessary to prevent cephalad migration of the condyle. It is also difficult to get full range of motion and satisfactory union in old osteoporotic bones.

CONCLUSION :

Anatomical restoration of the joint surface, rigid fixation of the fracture, early range of motion exercises, proper patient education and motivation also education of the caregiver can provide excellent outcome in cases of medial femoral condyle fracture in old age patients.

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