

A SUCCESSFUL PATELLAR OSTEOCHONDRAL FRACTURE FIXATION WITH CROSSING SUTURE TECHNIQUE : A CASE REPORT

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INTRODUCTION

Patellar osteochondral fractures account for 1% of all bone fracture and commonly associated with lateral patellar instability. Therefore it is important to achieve stable fixation with minimal complication. Screws and K-wires require larger osteochondral fragments and associated with cartilage abrasion, hardware prominence, synovitis and foreign body reaction [1]. In contrast, suture fixation can adequately stabilize smaller osteochondral fragments, allows early mobilization and subsequent surgical procedure for removal of metallic implants is not required.

CASE REPORT

A 15-year-old boy presented with left patellar dislocation following a fall with forceful knee flexion. Physical examination revealed tense effusion with ecchymosis of left knee. CT scan showed displaced osteochondral fracture of medial patellar facet [FIGURE 1].



FIGURE 1 :CT scan of the left knee shows the displaced osteochondral fragment (arrow).

Open reduction done through midline incision and medial parapatellar approach. Fracture site involved entire medial facet. The osteochondral fragment was found in the suprapatellar pouch, measuring 2.5cm length, 2cm width and only 2mm in thickness. There was minimal comminution

at the medial border of osteochondral fragment. The fragment was reduced anatomically to the patella and temporarily secured K-wires. Holes was predrilled using 2.0m K-wire. Two non-absorbable polyethylene suture (ultrabraid suture) was inserted and held in the crossing diagonal fashion [FIGURE 2].

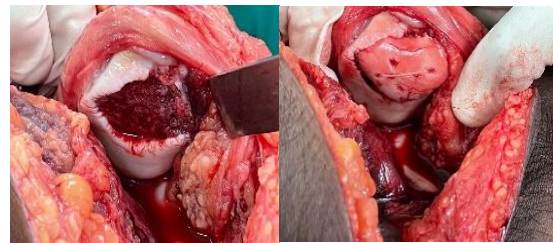


FIGURE 2 :Clinical pictures show suture fixation of the osteochondral fragment

Three months later, fracture union was achieved and patient regained full range of motion. Plain film radiography revealed normal appearance of patella with no lateral patella instability.

CONCLUSION

Stable suture fixation of patellar osteochondral fragment was able to achieve by using a high strength polyethylene suture. Moreover it can prevent fragment comminution of a thin osteochondral fragment. Suture fixation technique of patellar osteochondral fracture is a safe and easy to perform, suitable for small thin fragment, avoid complications and further surgery.

REFERENCES

1. Friederichs MG, Greis PE, Burks RT. Pitfalls associated with fixation of osteochondritis dissecans fragments using bioabsorbable screws. *Arthroscopy* 2001;17:542-545