

Metal-Free Fixation Of Patella

¹Ong KY, ²Wong VS, ³Tan KY

¹ Orthopedic Department Hospital Sultanah Bahiyah.

INTRODUCTION:

To restore extensor mechanism of the knee, surgical intervention is required for displaced comminuted patella fractures. There are many challenges to achieve anatomical articular reduction with stable fixation in comminuted fracture patella. The purpose for surgical intervention is to allow early mobilization, prevent knee stiffness and bed bound complications. Many surgical techniques need to use metallic implant for fixation. Due to fracture location, hardware-related complications are common after fixation.

REPORT:

This patient is 65 years old with underlying multiple co-morbidities. Patient presented with alleged fall due to slippery fall and sustained Closed fracture superior pole of patella.

Subsequently, the patient underwent “Cobb Web Suture” of the patella using ethibone suture. Post operative, the patient was put on T-scope brace started on range of movement of the knee. For the 1st and 2nd week, the patient was allowed up to 30-degree flexion, 3rd, and 4th week up to 60-degree flexion and 5th and 6th week up to 90-degree flexion. Patient was also allowed for partial weight bearing post operative.

By the end of 6th week, this patient achieved range of movement of 0-100 and patient was allow full weight bearing ambulation.

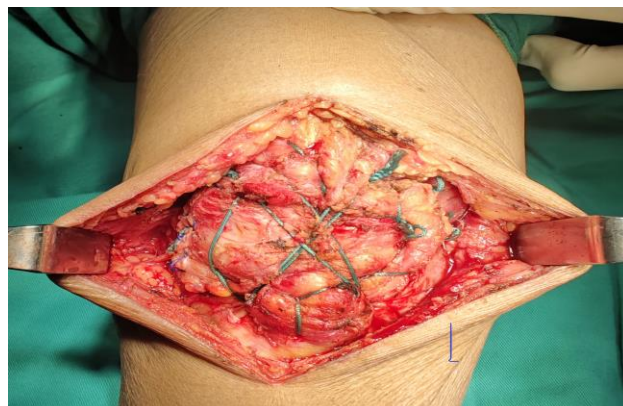


Figure 1. Intraoperative suture



Figure 2. Pre and post operative lateral view knee X-ray

CONCLUSION:

Majority of fixation requires metal to ensure stable and rigid fixation. However, this method of fixation demonstrates metal-free fixation of patella and patient achieved early mobilization.

REFERENCES:

1. Moore KL, Dalley AF. Anatomia orientada para clínica. 4 a ed. Rio de Janeiro: Guanabara Koogan; 2005
2. Swan KG Jr, Baldini T, McCarty EC. Arthroscopic suture material and knot type: an updated biomechanical analysis. Am J Sports Med 2009;37(08):1578–1585
3. Wright PB, Budoff JE, Yeh ML, Kelm ZS, Luo ZP. Strength of damaged suture: an in vitro study. Arthroscopy 2006;22(12):1270–5.e3