

Tension Band Suture for Fixation of Patella Fracture

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INTRODUCTION:

Tension band construct is a common method used to fix patella fractures. We are reporting the outcome of a series of patients with patella fracture treated with tension band using heavy non-absorbable braided suture.

MATERIALS & METHODS:

Patients with isolated patella fractures were recruited in this series. Patients with other periarticular fractures of the knee were excluded from this study. Intraoperatively, midline incision was used. Reduction was done using the guidance of image intensifier. Size 5 heavy non-absorbable braided suture were used to pass through the soft tissue of proximal and distal pole of the patella in tension band fashion. Another heavy suture was used to cerclage the patella. The knee was immobilised for one week followed by range of motion exercises.

RESULTS:

Ten patients were recruited from January to December 2021. The mean age was 48-year-old (22-71 years). Average operating time was 39 minutes (26-90 minutes). During the final follow up, the mean flexion of the knee was 128.5 degrees (110-140 degrees). Patients were able to achieve maximum range of motion with mean time of five weeks.

There was no cases of surgical site infection, prominent implant, or failure of implant seen in our series.



Figure 1: Heavy non-absorbable braided suture was used to fix the patella fractures.



Figure 2: Full range of motion achieve 5 weeks postoperatively.

DISCUSSIONS:

Various methods of using heavy suture or fibre wire have been described in fixing patella fracture. Our series is different from the literature as we are not creating a bony tunnel to pass the heavy suture. The outcome of our study showed encouraging results.

CONCLUSION:

Heavy non-absorbable braided suture can be used to fixed patella fracture. Removal of prominent hardware is not needed using this method.

REFERENCES:

1. Adjal J, Ban I. Patella fractures treated with suture tension band fixation. J Orthop Surg Res. 2021 Mar 9;16(1):179.