

Functional And Radiological Outcome Of Patella Fracture Surgery: A Preliminary Analysis

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INTRODUCTION:

Patella fractures are relatively rare, with the literature reporting their prevalence at 0.7% to 1% of all skeletal fractures¹. There is lack of data in Malaysia regarding outcome following surgery of patella fractures. The purpose of this study is to evaluate the functional and radiological outcome after patella fracture surgery in Hospital Sultanah Nur Zahirah (HSNZ), Kuala Terengganu.

METHODS:

All surgically treated patella fractures in HSNZ from June 2017 to June 2018 were identified. The radiological outcome was interpreted at 3 months post-operatively using standard anteroposterior and lateral knee radiographs, assessing for radiological fracture union and fracture fixation failure. The functional outcome was evaluated at 6 months post-operatively using Knee Injury and Osteoarthritis Outcome Score (KOOS).

RESULTS:

Eleven patients who fulfilled the inclusion criteria were selected in this study. At 3 months, all fractures were united and no fracture fixation failure identified. Functional outcome analysis at 6 months showed high mean scores for domain pain, symptom and ADL, however lower mean scores for domain sport/recreation and QOL (100 score indicating no symptom and 0 score indicating extreme symptom). The most common complication was prominent hardware.

Table 1: The KOOS outcome scores (N=11)

| KOOS subscale scores | Mean | Range |
|----------------------|------|--------|
| Pain | 84 | 67-97 |
| Symptom | 86 | 57-100 |
| ADL | 86 | 56-99 |
| Sport/recreation | 67 | 25-100 |
| QOL | 65 | 31-94 |

DISCUSSIONS:

The treatment of patella fractures is chosen on individual basis, depending on fracture type and morphology, congruence of articular surface and stability of extensor mechanism². Three surgical techniques used are cerclage wiring, modified AO tension band wiring and screw fixation. These techniques, despite being conventional may provide satisfactory result if done correctly.

CONCLUSION:

Surgically treated patella fractures in this study yield acceptable overall functional outcome with good radiological outcome for osseous union without fracture fixation failure.

REFERENCES:

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