

PROXIMAL FIBULAR OSTEOTOMY AS A RELIABLE SURGICAL OPTION IN MANAGEMENT OF MEDIAL FEMOROTIBIAL OSTEOARTHRITIS

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INTRODUCTION:

Recent evidence suggests that proximal fibula osteotomy (PFO) could be a promising alternative treatment to high tibial osteotomy in managing medial knee osteoarthritis (OA).

The objective of this study is to determine the effectiveness of PFO in relieving symptoms of medial knee OA.

METHODS:

Computer-aided searches of Medline, EMBASE, CINAHL, and Cochrane Central Register of Controlled Trials were conducted till December 2018, together with reference checking.

Two reviewers independently screened abstracts for eligible studies and full texts were reviewed. Five prospective studies, and two retrospective studies were included in the review.

RESULTS:

A total of 354 patients, involving 426 knees were included in this study, with longest follow-up period at 3 years. The available data could only be included as a narrative description.

Heterogeneity in outcome assessment limits comparison between studies. Radiological evaluation revealed statistically significant increase in joint space (medial/lateral) ratio, with improved mean of tibiofemoral angle. The structural improvements achieved after PFO is further supported clinically by statistically significant improvement in VAS, KSS, KOOS, SF-12, Oxford and AKS scores.

DISCUSSIONS:

Lateral support of the fibula to the tibial plateau is a key factor causing non-uniform arrangement of bilateral plateau and medial shift of the mechanical axis, resulting in degeneration and varus abnormalities of the knee joint.

PFO permits periarticular soft tissue rebalancing and improved load redistribution which results in symptom improvement.

CONCLUSION:

Current evidence suggests that PFO is a simple, safe, quick and affordable surgical procedure to reduce pain in the knee.

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