

Comparison of soft tissue and bone graft fixation for reconstruction of the medial patellofemoral ligament. A randomized controlled trial.

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Background: Medial patellofemoral ligament reconstruction (MPFL-R) has recently been accepted as the primary surgical treatment for patella instability. Limited knowledge exists concerning which reconstruction technique that gives the best clinical outcome and the least surgical morbidity.

Purpose / Aim of Study: The present study compares clinical outcome and surgical morbidity after MPFL- R with either bone (standard technique) or soft tissue femoral graft fixation in a randomized controlled study.

Materials and Methods: 60 patients were randomized to two MPFL- R techniques: Bone or soft tissue fixation of the graft at the femoral condyle. Patients were operated between 2010 and 2015. Indication for surgery was two or more patella dislocations. Surgical technique bone fixation: Gracilis tendon fixed in a bone tunnel with interference screw. Surgical technique soft tissue fixation. Gracilis tendon was looped around the adductor magnus tendon. Both techniques had patella graft fixation with drillholes in the medial patella edge. Clinical outcome were evaluated with Kujala, KOOS and NRS pain scores preoperatively and at 1-year follow-up. Surgical morbidity was evaluated by pain at palpation along the reconstruction.

Findings / Results: Kujala score was 83 and 84 for bone and soft tissue MPFL-R respectively with no difference between groups. No differences on KOOS and pain scores were found. Surgical morbidity analysis demonstrated that 13 and 12 % had significant palpable pain at the reconstruction for bone and soft tissue MPFL-R respectively. There were no patella redislocations in both groups.

Conclusions: MPFL-R with soft tissue femoral fixation results in similar subjective clinical outcome, patella stability and pain levels as bone fixation. Surgical morbidity was also similar between soft tissue and bone fixation MPFL-R.

No conflicts of interest reported