

Tunnel-Enlargement After Medial Patello-Femoral Ligament (Mpf) Reconstruction With A Free Gracilis Graft; Clinical Implications And Magnetic Resonance Imaging Evaluation

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Summary:

Only proximal malposition of the femoral tunnel showed a significant correlation with femoral tunnel enlargement although no functional or clinical disadvantages could be perceived related to the enlargement of the femoral tunnel.

Abstract:

Introduction: Medial patello-femoral ligament (MPFL) reconstruction is a standard procedure in the armamentarium for the treatment of patella instability. While tunnel widening is a well studied phenomenon following anterior cruciate ligament reconstruction, only few data is available concerning tunnel enlargement after MPFL reconstruction.

Methods: Patients with a minimum follow-up of 1.5 years after MPFL reconstruction with a free gracilis graft were evaluated by clinical examination (Kujala, Tegner and IKDC scores) and magnetic resonance imaging (MRI). On MRI tunnel diameter and tunnel position as well as possible cartilage damage, Caton-Dechamps index, trochlear dysplasia and TT-TG distance were assessed.

Results: 23 of 51 consecutive patients showed a tunnel enlargement. In these 23 patients 20 patients showed a tunnel that was positioned too proximal. No redislocations occurred in either group and range of motion showed no differences between patients with and without enlargement. Interestingly better clinical results as measured by Tegner scale, Kujala and IKDC score were seen in the enlarged group underlining increased mechanic stress on the reconstructed MPFL as a possible reason for tunnel enlargement.

Conclusion: Tunnel enlargement after MPFL reconstruction might be related to tunnel malposition and increased stress on the fixation side. No adverse clinical results were found related to the enlargement of the femoral tunnel.