

Arthroscopic posterior cruciate ligament reconstruction with hamstring tendon autograft: results with a minimum 4-year follow-up

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摘要

Abstract

This study prospectively evaluates the outcomes at a minimum 4-year follow-up after PCL reconstruction using quadruple hamstring tendon autograft with an arthroscopic double fixation technique. During 1996-1999, hamstring tendon autograft has been used in 57 patients. Data from 52 patients who had been followed up completely were analyzed. All patients suffered from a grade 3 or higher grade of posterior drawer test and posterior sag sign with MRI image confirmation. Twelve knees had combined posterior and posterolateral instability, which were simultaneously reconstructed. Clinical assessments included Lysholm knee score, International Knee Documentation Committee (IKDC) scores, KT-1000 instrumented test, thigh muscle assessment, and radiographic evaluation. The mean Lysholm score was 54 (40-65) and 91 (65-100) points ($P < 0.01$) before and after surgery. Thirty (58%) patients could return to moderate or strenuous activity. The evaluation of AP translation has been performed with KT-1000. The average posterior displacement measured with KT-1000 was 11.69 ± 2.01 mm preoperatively and 3.45 ± 2.04 mm postoperatively. Forty-two (81%) patients demonstrated ligament laxity of less than 5 mm. Forty-two (81%) patients were rated as normal or nearly normal based on IKDC scores. Forty-six (88%) patients achieved a minimum of 80% recovery of extensor strength and 44 (85%) patients achieved a minimum of 80% recovery of flexor strength. Statistically significant differences existed in thigh girth, extensor strength, and flexor strength before and after reconstruction. Arthroscopic reconstruction for PCL with four-strand hamstring tendon graft produced satisfactory results. The semitendinosus and gracilis tendon graft is adequate in graft size, technically easier to perform and more reproducible, and had a satisfactory result.