

Arthroscopic anterior cruciate ligament reconstruction with quadriceps tendon autograft: clinical outcome in 4–7 years

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摘要

Abstract

Surgical reconstruction of the anterior cruciate ligament (ACL) is indicated in the ACL-deficient knee with symptomatic instability and multiple ligaments injuries. In the present study, we describe the clinical results of quadriceps tendon-patellar bone autograft for ACL reconstruction. From 1996 to 1998, the graft has been used in 38 patients. Thirty-four patients with complete final follow-up for 4 – 7 years were analyzed. The average follow-up time was 62 (48 – 84) months. Thirty-two patients (94%) achieved good or excellent results by Lysholm knee rating. Twenty-six patients (76%) could return to moderate or strenuous activity after reconstruction. Twenty-eight patients (82%) had ligament laxity of less than 2 mm. Finally; 31 patients (91%) were assessed as normal or nearly normal rating by IKDC guideline. Twenty-five patients (73%) had less than 10 mm difference in thigh girth between their reconstructed and normal limbs. Thirty-two (94%) and 31 (91%) patients could achieve recovery of the extensor and flexor muscle strength in the reconstructed knee to 80% or more of normal knee strength, respectively. A statistically significant difference exists in thigh girth difference, extensor strength ratio, and flexor strength ratio before and after reconstruction. Tunnel expansion with more than 1 mm was identified in 2 (6%) tibial tunnels. Our study revealed satisfactory clinical subjective and objective results at 4 – 7 years follow-up. Quadriceps tendon autograft has the advantage of being self-available, relatively easier arthroscopic technique, and having a suitable size, making it an acceptable graft choice for ACL reconstruction. There is little quadriceps muscle strength loss after quadriceps harvest. A quadriceps tendon-patellar autograft is an adequate graft choice to ACL reconstruction.