



Shelbourne Knee Center
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Anterior Cruciate Ligament (ACL)-Deficient Knee with Degenerative Arthrosis. Treatment with an Isolated Autogenous Patellar Tendon ACL Reconstruction. Shelbourne KD, Stube KC: *Knee Surg, Sports Traumatol, Arthrosc* 5:150-156, 1997

ABSTRACT: We evaluated 58 patients (mean age = 30.4 years) who had undergone an isolated anterior cruciate ligament (ACL) reconstruction for chronic instability (mean time from injury to surgery, 8.2 ± 5.2 years) and showed radiographic evidence of degenerative arthrosis. Objective evaluation at a mean of 4.1 years postoperatively included KT- 1000 arthrometer stability, range of motion, and quadriceps muscle strength testing. Subjective analysis at a mean of 5.5 years postoperatively included rating of pain, stability, activity level, and a total score both preoperative and postoperative. Patients were divided into two groups: group I (n = 28) with a follow-up 5 years (mean 7.2 years). Results were analyzed by length of follow-up and by the grade and compartment of arthrosis. All patients enjoyed a full range of motion preoperatively and postoperatively. The mean KT- 1000 arthrometer manual maximum difference improved from a mean of 8.2 mm preoperatively to 2.4 mm postoperatively. All subjective scores showed statistically significant improvement over the preoperative values. Patients with medial compartment arthrosis reported a better subjective total score (mean 87) than patients with lateral compartment (mean 73) or bicompartamental (mean 79) arthrosis, but there was not a statistically significant difference. There was no correlation between pain, stability, or total scores and time after surgery. Patients in groups 1 and 2 had equal objective stability and similar subjective scores, but group 2 reported a lower activity level. An isolated ACL reconstruction can provide long-term stability and symptomatic pain relief in patients with chronic instability and arthrosis. The procedure has low morbidity and does not compromise future tibial osteotomy or total knee replacement. Key words: Anterior cruciate ligament - Arthrosis Chronic instability.