Functional results of arthroscopic Anterior Cruciate Ligament (ACL) Reconstruction comparison study between patellar tendon or hamstring tendon graft

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Abstract
This randomized clinical trial evaluated one year, International Knee Documentation Committee score (IKDC) outcomes of patients treated for Anterior Cruciate Ligament (ACL) deficiency with use of a patellar tendon, hamstring tendon reconstruction.

Keywords: Anterior cruciate ligament, hamstring tendons, patellar tendons, ACL reconstruction

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INTRODUCTION

Patients (n=52, 20 male; 20 years to 45 years of age) were randomly allocated to anatomically positioned ACL reconstruction with use of a patellar tendon graft (patellar tendon group; mean age 28 years), hamstring tendon construct (hamstring tendon group; mean age, 26 years. Computer-generated allocation with varied block randomization was performed intraoperatively. The 1 year primary outcome measure was the outcome measures included the International Knee Documentation Committee (IKDC) subjective score and objective grades, kneeling pain.

RESULTS

Three fifty tow patients completed the 1-year follow-up. IKDC scores increased significantly from baseline for all groups (p<0.0001), but mean scores at 1 years did not differ among the groups, per grade (85%, 80%) for the 2 groups, respectively; p=0.06) trended in favor of patellar tendon reconstruction. No differences were seen for the IKDC subjective scores. The pain was an important factor for showing the differences between the two grafts in our work. Our results showed a significant difference between the two groups in terms of pain severity. The patients of the HT group had significantly less pain than did those in the PT group.

CONCLUSIONS

At 1 year, we found no significant difference in the IKDC outcome among the patellar tendon, hamstring tendon for ACL reconstruction. Next, activity level and the type of sport/activities that you do can influence the decision you may make. If you play a sport for example that requires a lot of backwards running or motions that rely heavily on the hamstring involvement then this graft type should probably be avoided.