

Simultaneous reconstruction of anterior cruciate ligament (ACL) with autologous graft and of medial collateral ligament (MCL) with allograft

José Luis Aparicio, MD, Lisandro Nardin, MD, Matías S. Savá, MD

Sanatorio Mapaci, Rosario Santa Fe, Argentina

Introduction: Over the last years, the incidence of multiple ligament injuries has increased significantly due to the rising number of traffic accidents in relation to their kinetics and due to higher sports demands. Among their various combinations, one of them is the lesion of anterior cruciate ligament (ACL) which is associated to medial collateral ligament responsible for them in a 13 %.

Nowadays several techniques to the reconstruction of Anterior Cruciate Ligament (ACL) and Medial Collateral Ligament (MCL) are applied. Therefore, for the last three years, we have carried out the simultaneous reconstruction of ACL with autologous graft and of MCL with allograft. Benefits include avoidance of morbidity in multiple donor areas, a safe bone-to-bone fixation in the case of Achilles tendon grafting; tiny incisions in the skin, and anatomical reconstruction.

Throughout the years, the use of allografts has been very frequent. This is due to their safety factors, accessibility and their functional outcomes in the long term.

Objectives: Show our surgical technique and experience in the combined reconstruction of anterior cruciate ligament with autologous graft and of medial collateral ligament with allograft.

Methods: Fourteen (14) patients, with an average age of 29, were evaluated after they had undergone a reconstruction of ACL and MCL with autologous graft and allograft respectively. Average follow-up was 19.6 months.

With respect to the surgical technique, it comprises two small incisions placing the anatomical femoral and tibial insertion for the MCL, and arthroscopically the anatomical location of the LCA. Later, some corresponding holes are made to be fixed with blunt Titanium screws following the same procedure.

Mobility, joint laxity and subjective functionality were evaluated by means of Lysholm scores and International Knee Documentation Committee (IKDC).

Results: The Average Lysholm knee score was 93, while all the patients were classified A/B according to the IKDC and were able to return to their normal sport and daily activity. Their range of motion remained stable.

Conclusion: In multiple ligament knee injury, the use of allografts or in combination with autologous graft has become a valid resource.

The lower risk of morbidity from the donor zone, the lower exposure of tissues, the lower postoperative pain with the MCL allograft at a low cost and greater security with ACL autologous graft have turned this surgical technique in a viable option for multi-ligament injured knee reconstruction.

The Orthopaedic Journal of Sports Medicine, 2(12)(suppl 4)

DOI: 10.1177/2325967114S00243

©The Author(s) 2014