

Paper #6

Transtibial vs. Anteromedial Portal Techniques in Anterior Cruciate Ligament Reconstruction: Prospective and Randomized Series

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Summary:

Transtibial X Anteromedial Portal techniques in ACL reconstruction: is there any difference?

Abstract:

Introduction

Although the results of anterior cruciate ligament (ACL) reconstruction are well documented in many studies, with good to excellent outcomes in most cases, some issues like tunnel positioning are still discussed and studied.

Objective

To compare the objective and subjective clinical outcomes of ACL reconstruction using the transtibial and anteromedial portal techniques.

Methods

Eighty patients underwent anterior cruciate ligament reconstruction, operated on by the same surgeon, prospectively and randomly, with 40 patients receiving the transtibial technique and 40 patients receiving the anteromedial portal technique. The patients, 34 in the transtibial group and 37 in the anteromedial portal group (nine dropouts), were reassessed during a 2-year follow-up period. The clinical assessment consisted of physical examination, KT1000TM evaluation, Lysholm score and objective and subjective IKDC scores.

Results

Regarding the Lachman and pivot shift tests, we observed more cases of instability in the transtibial group, but with no statistical significance ($p=0.300$ and $p=0.634$). Regarding the anterior drawer test, the groups presented similar results. Regarding KT 1000TM evaluation, the mean results were 1.44 for the transtibial group and 1.23 for the anteromedial portal group, with no statistical significance ($p=0.548$). We separated the IKDCo scores into two groups: 1. IKDCo a, and 2. IKDCo b, c or d, with no statistical significance ($p=0.208$). In regard to the Lysholm score, the transtibial group had a mean score of 91.32, and the anteromedial portal group had a mean score of 92.81. The mean subjective IKDC scores were 90.65 for the transtibial group and 92.65 for the anteromedial portal group.

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Regarding reruptures, Three cases were encountered in the transtibial group and 3 cases were encountered in the anteromedial portal group.

Conclusions

There were no significant differences in the subjective and objective clinical assessments between patients submitted to anterior cruciate ligament reconstruction using the transtibial or anteromedial portal techniques.

Keywords: anterior cruciate ligament, knee, reconstruction.