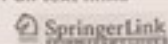


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Posterior cruciate ligament reconstruction for chronic lesions: clinical experience with hamstring versus ligament advanced reinforcement system as graft.

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Abstract

PURPOSE: The aim of this study was to compare clinical and laximetric results in chronic, isolated posterior cruciate ligament (PCL) rupture repairs, using either a hamstring graft or an artificial ligament (ligament advanced reinforcement system (LARS®)).

METHODS: Sixteen patients presenting with an isolated unilateral PCL rupture were included in this retrospective study. Initially, eight underwent a PCL reconstruction using a hamstring tendon autograft (hamstring group), and over a later period, eight further patients underwent a reconstruction using an artificial ligament with a new procedure.

RESULTS: Fifteen patients were male and one female, with an average age of 29.3 years. All patients were operated on within an average time of 18 months post-injury. Pre-operative posterior laxity was equivalent ($p = 0.309$), 18.25 mm on average for the hamstring group and 18.75 mm for the LARS group. With an average follow-up of 24 months, residual posterior laxity was significantly improved, decreasing from 18.25 to 7.37 mm for the hamstring group ($p < 0.05$) with a median at 7.5 mm and from 18.75 to 5.25 mm for the LARS group ($p < 0.05$) with a median at 5 mm. The improvement in laxity for the hamstring group was 60% and 71.5% for the LARS group. The LARS group compares favourably ($p = 0.003$ and 0.01). Tegner activity level improved significantly following ligamentoplasty, with no difference between the two groups ($p = 0.4$). Likewise, there was no significant difference in the Lysholm and IKDC scores between the two groups ($p = 0.4$).

CONCLUSION: The initial hypothesis of this study was proven correct. Nevertheless, a longer term study is necessary to assess the consequences of residual laxity in hamstring grafts and the long-term behaviour and tolerance of the LARS artificial ligament.

KEYWORDS: Hamstring tendons; Ligament advanced reinforcement system (LARS); Reconstruction posterior cruciate ligament

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