Return to Sports of Anterior Cruciate Ligament Primary Repair versus Anterior Cruciate Ligament Reconstruction at 2-Year Follow Up

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INTRODUCTION:
Literature comparing return to sports (RTS) between Anterior Cruciate Ligament (ACL) primary repair (ACLPR) and ACL reconstruction (ACLR) is lacking.
METHODS:
Patients <50 years of age and with a pre-injury Tegner score of ≥5, undergoing either ACLPR or ACLR by a single surgeon, from 01/2018 to 04/2021, were considered for eligibility. Surgical indication for either ACLPR or ACLR was based on ACL tear type and tissue quality. Activity level (Tegner Activity Scale), ACL-RSI scores, and instrumented knee laxity were evaluated at 2-year FU to evaluate success of RTS.
RESULTS:
At final FU (3.1 ±0.9 years) outcomes for 85 ACLPR and 65 ACLR patients were recorded. A significantly greater number of patients undergoing ACLPR returned to their pre-injury activity level (73% vs. 43%, p <.001), and further presented better ACL-RSI scores (75.0 ±21.7 vs. 65.5 ±24.0, p = .015). Instrumented knee laxity demonstrated similar results for both treatment groups (ACLPR, 0.87 ±1.2 mm; ACLR, 0.85 ±1.3 mm).
DISCUSSION AND CONCLUSION:
Patients undergoing ACLPR demonstrated greater return to pre-injury activity level and greater confidence in their operated knee when performing their respective sport at 2-year FU, compared to ACLR.