ACL Reconstruction Over 50: High Satisfaction and Low Failure Rates

Benjamin W Padon, Emily A Berzolla, Nicole Oberlag, Alexander Golant, Kirk A Campbell

INTRODUCTION:
As older individuals maintain active lifestyles, surgical interventions for anterior cruciate ligament (ACL) injuries are increasing. However, limited data exist on outcomes and failure rates in patients over 50 undergoing ACL reconstruction (ACLR).
METHODS:
A retrospective review was conducted on patients aged >50 who underwent primary ACLR at a single institution between 2011 and 2023, with minimum follow-up of two years. Demographics, injury details, and surgical variables were collected via chart review. Patient-reported outcomes (PROs), including anchor questions, Tegner activity scale, International Knee Documentation Committee (IKDC) score, and ACL Return to Sport Index (ACL-RSI), were gathered via phone survey. Patient acceptable symptom state (PASS) thresholds were determined using anchor-based receiver operating curve (ROC) analyses. Regression analyses assessed predictors of graft failure and PROs.
RESULTS: 155 patients (mean age: 56.1±4.8 years; BMI: 26.1±4.4; 42.6% male) were included with a mean follow-up of 6.2±2.9 years. The most common graft types utilized were the bone tendon bone and tibialis anterior allografts (56.8%, 12.9%). 82.5% had meniscal lesions; 60.6% managed with meniscectomy, 11.6% with repair, and 10.3% with both. Mean IKDC and ACL-RSI scores were 78.1±13.9 and 56.6±28.7, respectively. Tegner scores improved by 1.8±2.3, and 63.8% returned to their prior activity level. Graft failure occurred in 7.1% of patients, meniscal repair failure in 20.6% with meniscal root repair, and 2.6% proceeded to total knee arthroplasty. Most rated their outcome as very good or excellent (83.9%), 91.5% reported that surgery met expectations, and 88.2% achieved an acceptable symptom state. The PASS threshold for IKDC was 66.2 (sensitivity: 88.2%; specificity: 88.9%). No significant predictors of outcome or failure were identified.
DISCUSSION AND CONCLUSION: ACLR in patients over 50 yields favorable mid-term outcomes, high rates of return to activity, and low failure rates. Age alone should not be a contraindication to surgical intervention in appropriately selected patients.