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Good Functional Outcomes and Low Complication Rates at 2-Year Follow-Up in Patients Over 50 Undergoing Anterior Cruciate Ligament Reconstruction with Bone-Patellar Tendon-Bone.

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Faculty Disclosure Information

- The author, Rodrigo Olivieri, reports speaking fees from Johnson & Johnson Medtech.
- The author, Carlos Rojas, reports speaking fees from Johnson & Johnson Medtech.
- The remaining authors declare no conflicts of interest.



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Introduction

Anterior cruciate ligament (ACL) rupture alters knee kinematics, often resulting in instability and loss of functionality, which can lead to subsequent meniscal damage, recurrent instability, and articular cartilage pathology across all age groups. With the increasing life expectancy and demand for sports activities among the elderly population, there has been a rise in ACL injuries. ACL reconstruction (ACL-R) using bone-patellar tendon-bone (BPTB) autograft has been considered the gold standard; however, evidence of its use in patients over 50 years old is scarce.



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Objective

- The primary objective of this study is to evaluate functional outcomes, patellofemoral symptoms, and complications at 2 years in patients over 50 years old who underwent ACL-R with BPTB graft.



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Methods

- Retrospective evaluation of patients >50 years with ACL rupture.
- ACL reconstruction with BPTB autograft (Jan 2017 - Dec 2021, single center).
- Minimum 2-year follow-up.
- Exclusions:
 - Multiligament injuries and synthetic augmentation.
- Data collected:
 - Demographics, surgical technique, complications, re-interventions.
- Functional outcomes (2 years): Lysholm & KOOS QoL scores.
- Patellofemoral symptoms assessed using Kujala score.



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Results

Table 1. Demographics ACL with BPTB over 50 years

	Total (n = 33)
Age, mean (SD)	53.4(3.29)
Male, n (%)	21(63.3%)
Right, n (%)	16(48.4%)
Medical History, n (%)	
Type 2 diabetes	5 (15.5%)
Smoker	8 (24.2%)
BMI, mean (SD)	28.31 (3.21)
Injury mechanism	
Sports related, n (%)	8 (24.2%)
MVA	4 (12.1%)
Pivoting, n (%)	9 (27.2 %)
Torsion climbing stairs, n (%)	4 (12.1%)
Fall from height, n (%)	5 (15.1%)
Other, n (%)	3 (9.1%)
Follow up, mean (range)	42.7 (24-101)
SD = Standard deviation; yo = years old; BMI = Body Mass Index. MVA = motor vehicle accident. Age expressed in years, Follow-up expressed in months.	



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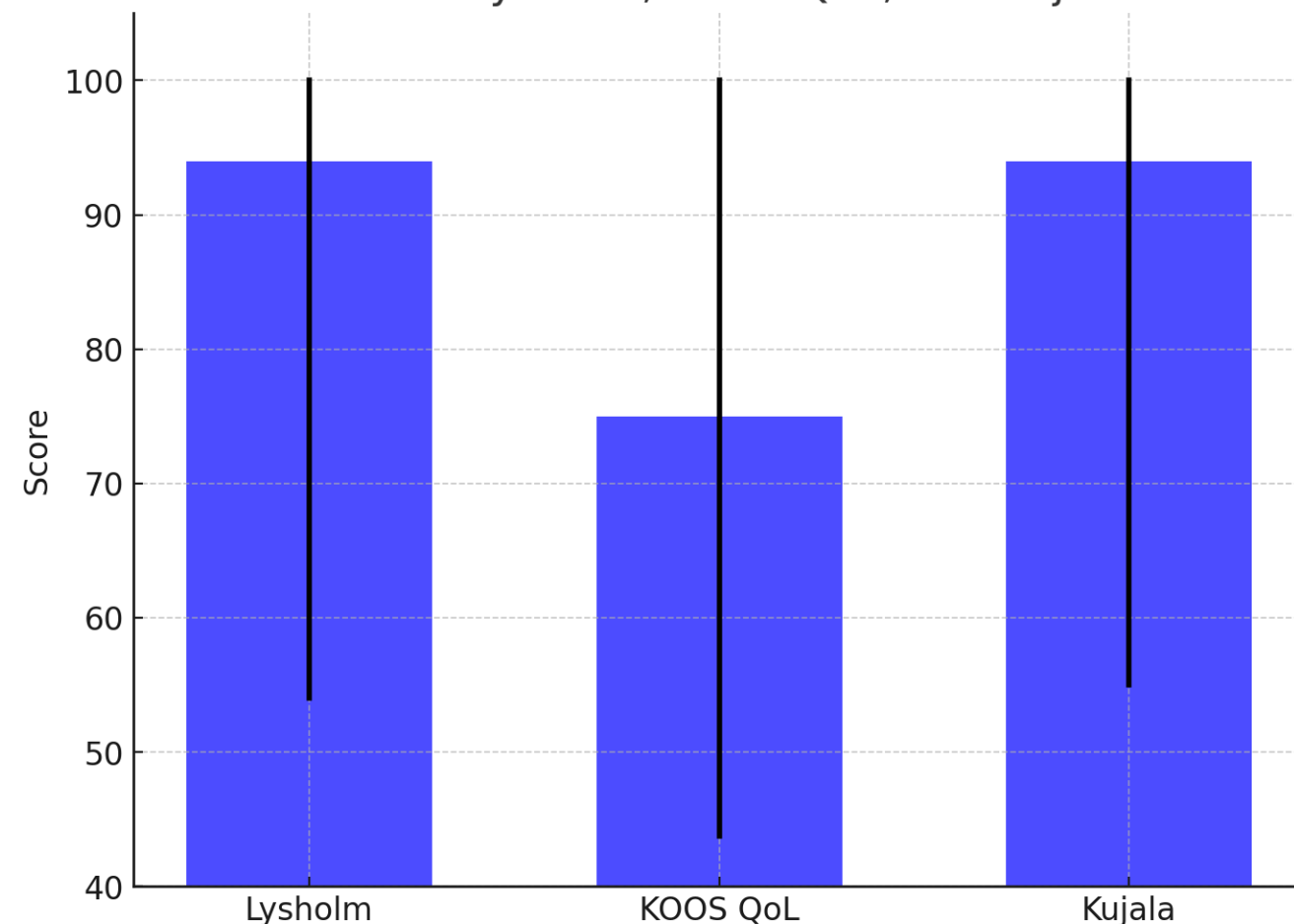


Results

Functional outcomes:

- **Lysholm score:**
Median 94 (range 54-100)
- **KOOS QoL:**
75 points (range 43.75-100)
- **Kujala score:**
Median 94 (range 55-100)
- 2 re-interventions:
 - Arthroscopic fibrolysis,
 - Cyclops lesion
- No infections or ACL re-ruptures
- Minimal patellofemoral symptoms (Kujala)

Distribution of Lysholm, KOOS QoL, and Kujala Scores



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Conclusions

- In this cohort of patients over 50 years old undergoing ACL-R with BPTB autograft, good functional outcomes, minimal patellofemoral symptoms, and low complication rates were observed at the 2-year follow-up.



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