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Biological Augmentation May Play a Role in Obtaining Superior Clinical Outcomes in Meniscal Root Repair with Concomitant Anterior Cruciate Ligament Reconstruction.

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Author's Disclosure

L.D, II.LT, DS, and AHD have nothing to disclose.

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Background, Objective, and Methods

Limited evidence exists for the effects of biological augmentation in isolated meniscal root repair, particularly when compared with concomitant meniscal root repair in the setting of ACL reconstruction.

The main purpose of the study was to compare the outcomes of meniscal root repair in 2 cohorts of patients: isolated meniscal root repair (n=17) and meniscal root repair with concomitant ACL reconstruction (n=17).

Primary clinical outcomes at a minimum of 29.4 (SD \pm 5.5) months postoperatively included Knee injury and Osteoarthritis Outcome Score (KOOS) and Lysholm Knee Questionnaire (LKQ).

Radiographic assessment of the knee included the Kellgren-Lawrence (KL) grading system. In addition, pre and postoperative MRI scans and intraoperative arthroscopic findings were also documented.



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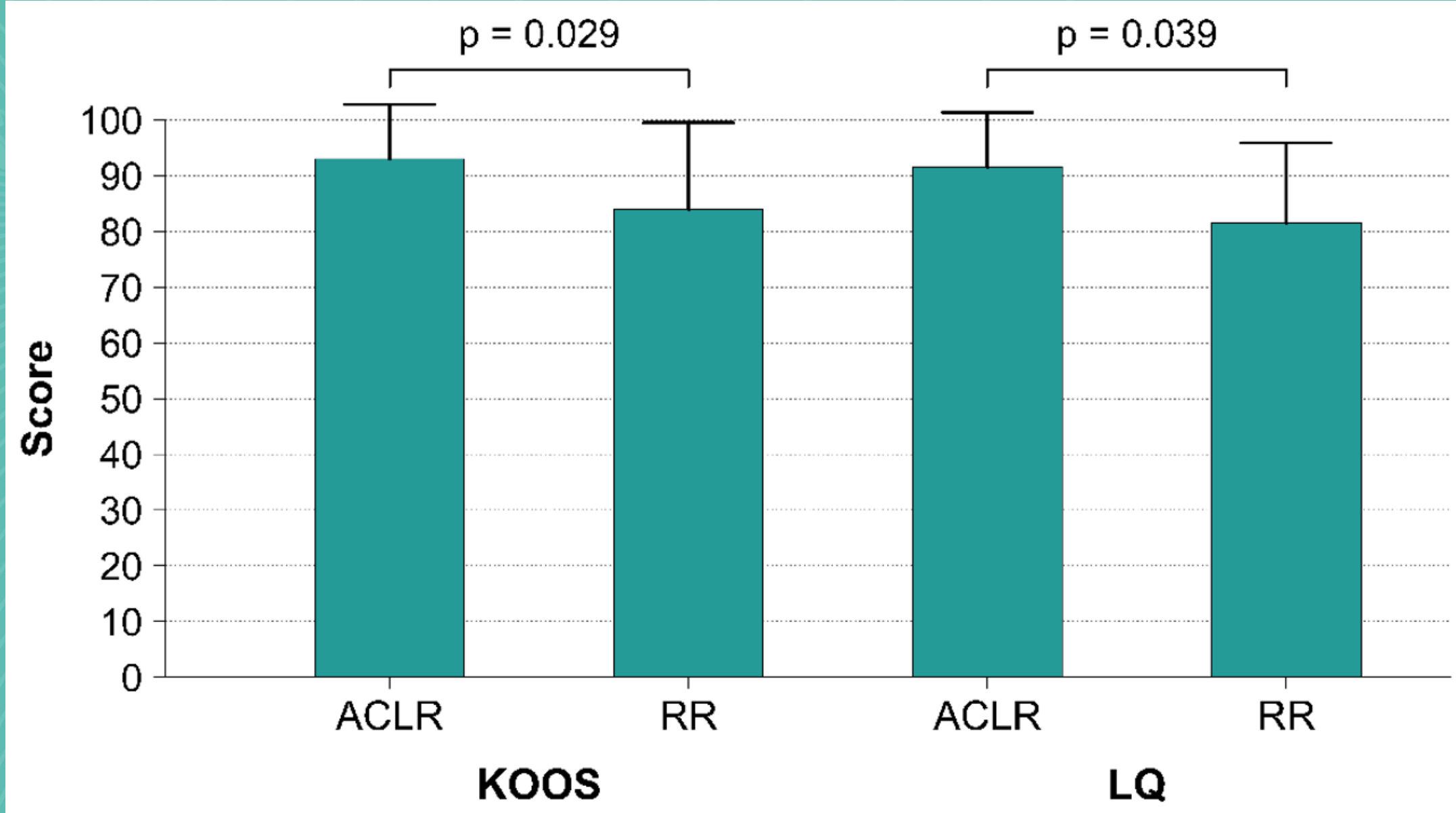


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Summary of Results



No significant difference in postoperative meniscal extrusion, chondropatia patella, and osteochondral defect were recorded between the two groups (p =0.118, 0.688, and 1.000, respectively).

Figure 1. Concomitant meniscal root repair group (ACLR) exhibited significantly greater improvement in clinical outcomes in both, the overall KOOS4 and LKQ scores .

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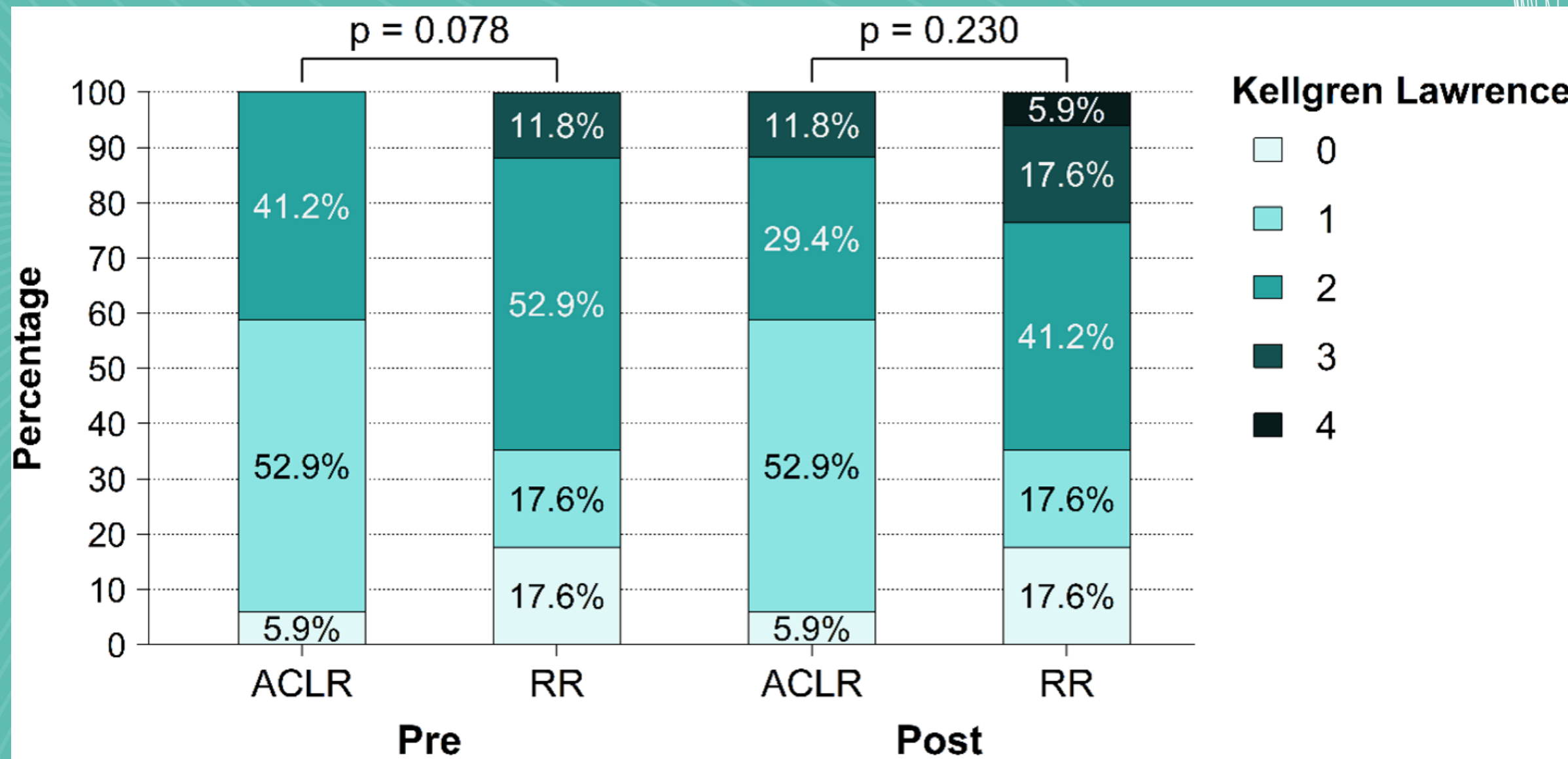


Figure 2. No significant difference in radiological progression of arthritic changes was observed postoperatively between the groups using KL score ($p=1.000$)



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Conclusions

The superior clinical outcomes were observed for meniscal root repair in the setting of ACL reconstruction that may be partly attributed to the biological augmentation during ACL tunnel drilling.



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