Clinical and MRI outcomes following meniscal repair: A comparison between tear types

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Disclosures

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No other conflicts of interests

Background

Meniscal tears are among the most common knee injuries

Loss of meniscal tissue detrimental for cartilage and stability

Repair Incidence Increasing

Repairs achieve better outcomes than menisectomy

Knee Surg Sports Traumatol Arthrosc (2015) 23:164–170
DOI 10.1007/s00167-013-2528-6

KNEE

A meta-analysis comparing meniscal repair with meniscectomy in the treatment of meniscal tears: the more meniscus, the better outcome?

Caiqi Xu · Jinzhong Zhao

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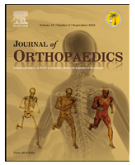

Long-term outcome after all inside meniscal repair using the FasT-Fix system☆

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Aim & Methods

Study Purpose

Report clinical and MRI outcomes of ISOLATED MENISCAL REPAIR across different tear types

Study Design

Retrospective analysis

Sample

117 patients undergoing isolated meniscal repair by 2 surgeons

Classification

Location: medial/lateral

Tear Pattern:
Bucket Handle
Horizontal
Radial
Longitudinal
Root Tear

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Data Collection

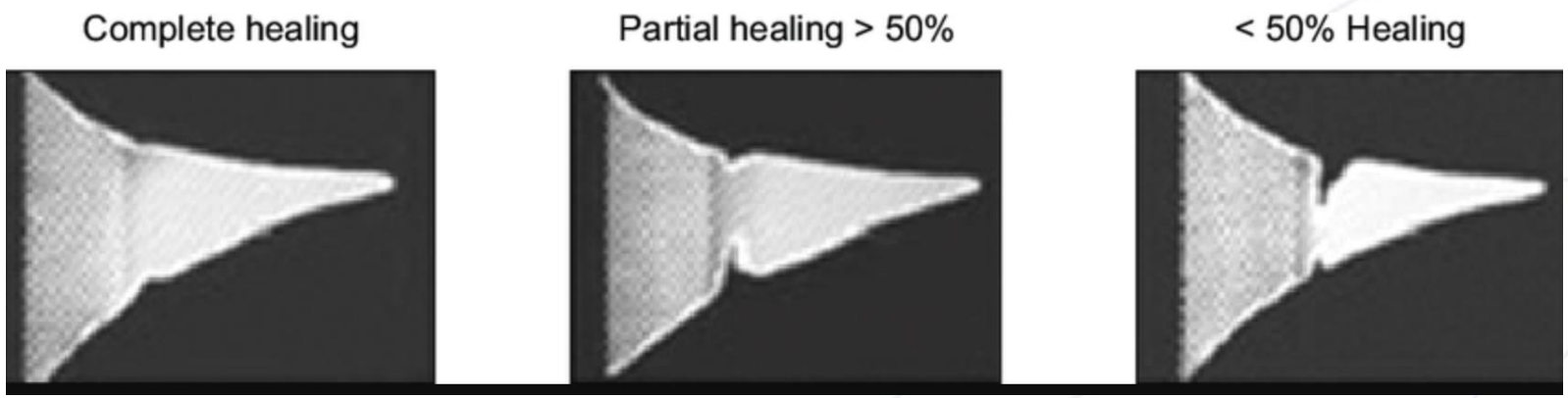
PROMS ≥ 2 years postop

Lysholm, IKDC, Tegner

MRI ≥ 1 year postop

Modified Hennings Criteria based on T2 fluid signal in the tear zone

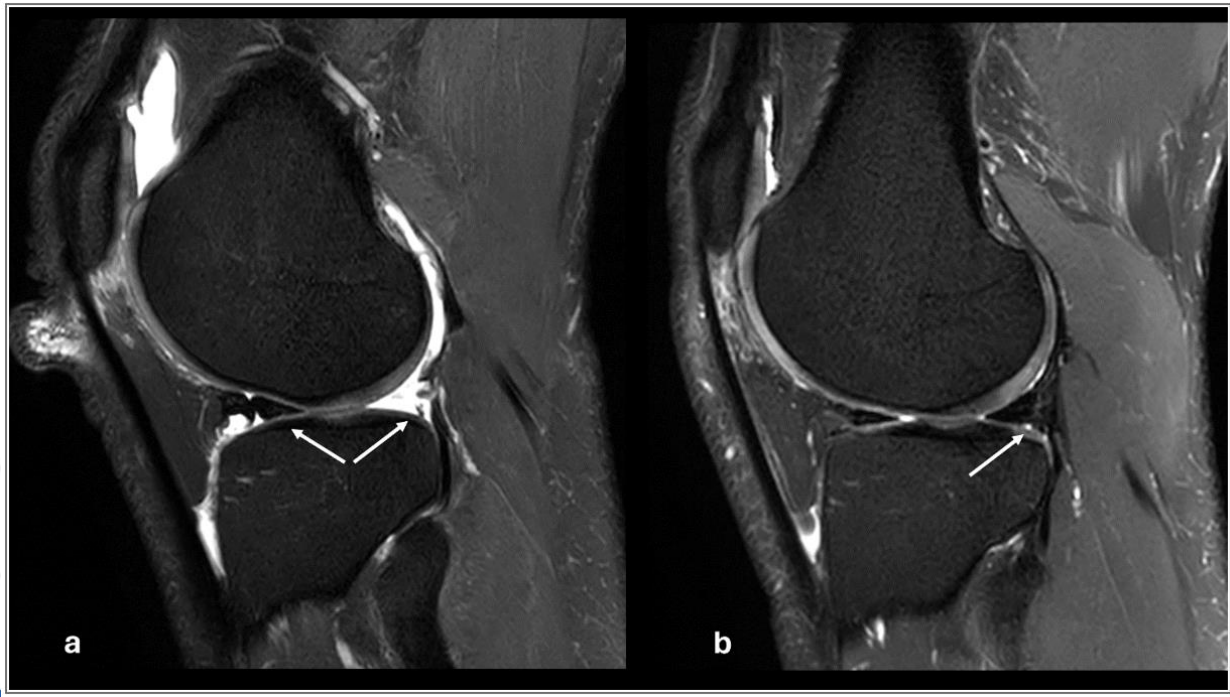
Classified into healed, partially healed, not healed



Pujol N, Panarella L, Selmi TA, Neyret P, Fithian D, Beaufils P. Meniscal healing after meniscal repair: a CT arthrography assessment. Am J Sports Med. 2008 Aug;36(8):1489-95

MRIs of a horizontal medial meniscus tear with healing on postoperative MRI (right)

MRIs of a lateral bucket handle meniscus tear with healing on postoperative MRI (right)



Results

Patients undergoing Isolated Meniscal Repair Between August 2016 and October 2021 (n=117, medial=73, lateral=44)

Excluded or Lost to Follow Up (n=34)

- Lost to Follow up (n=17, medial=7, lateral=10)
- Prior ACL reconstruction (n=3, medial=3)
- Recurrence of symptoms with MRI-based failure and revision surgery (n=14, medial=9, lateral=5)

Post-operative Review

- PROMs at ≥2 years post-surgery (n=83, medial=54, lateral=29)
- MRI Review at ≥1 year post-surgery (n=62, medial=39, lateral=23)

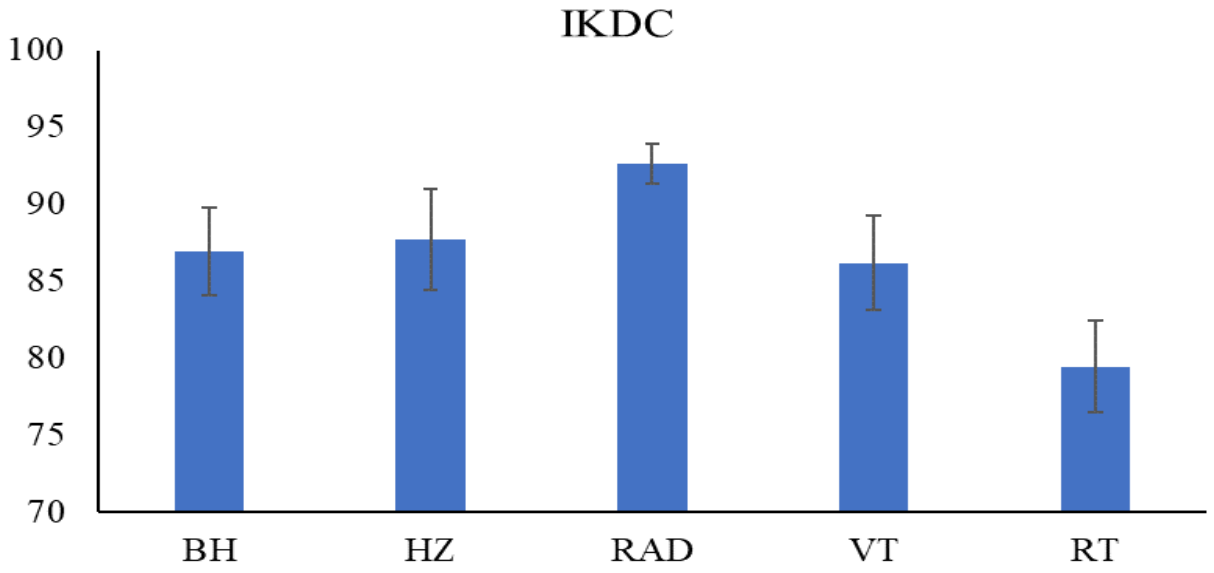
Results

Lateral vs. Medial (after excluding root tears)

No significant difference: Lysholm and IKDC

Higher Tegner Activity Scores for lateral tears
7.6 vs. 6.3

Results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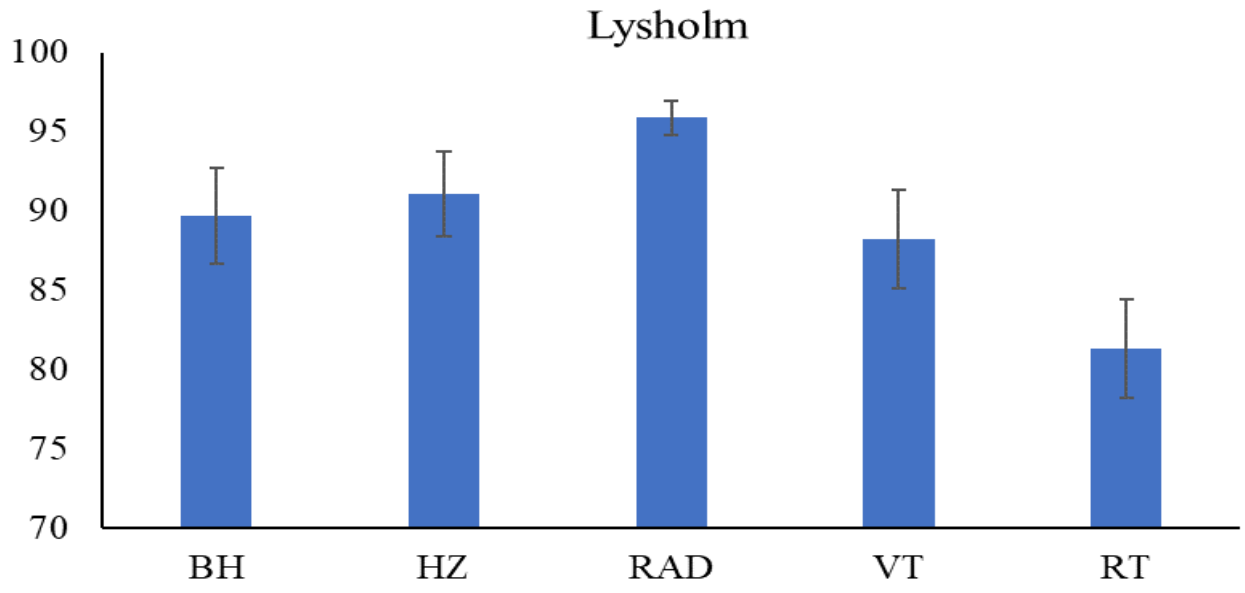
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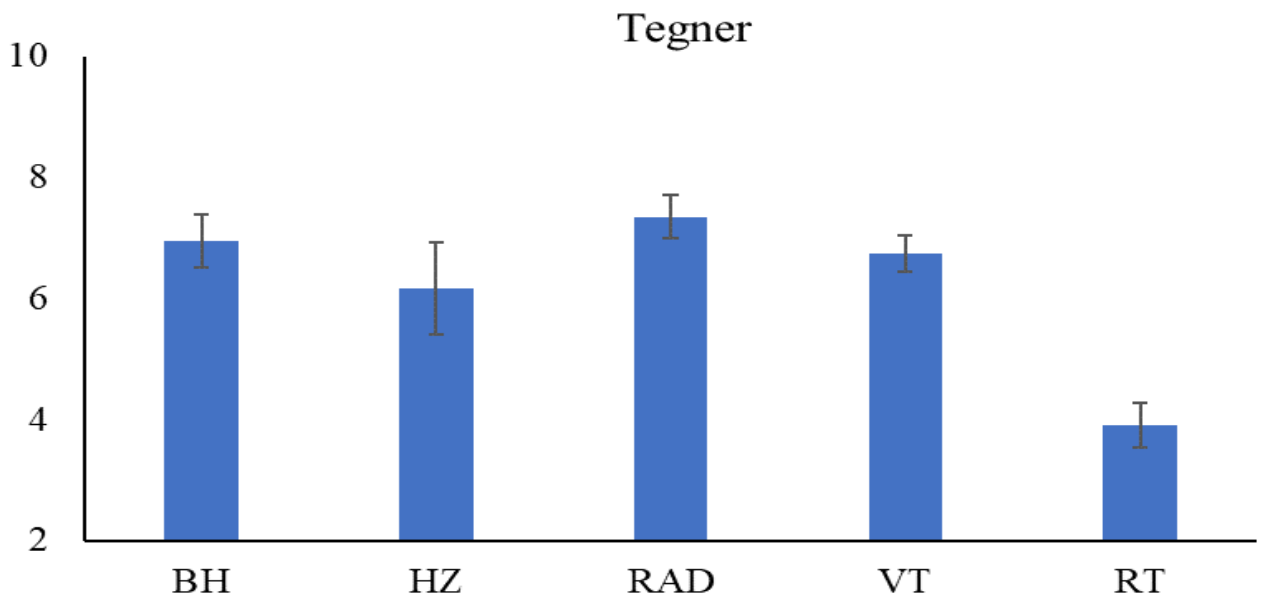
Tegner
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6
4
2
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HZ
RAD
VT
RT

Results Overview

Re-operation Rates

12% revision overall

Higher in bucket-handle and horizontal tears

No radial tear re-operations

Tear Types

Radial tears achieved superior PROMS

Root tears had inferior outcomes

MRI Healing Status

No significant difference between medial/lateral and tear types

No correlation between PROMS and MRI healing status

Key Findings

Encouraging results for isolated meniscal repairs, particularly for radial tears

Failed repairs on MRI do not necessarily correlate with poor clinical scores


THANK YOU

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