



Comment on “Retear Rates After Rotator Cuff Surgery: A Systematic Review and Meta-analysis

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ABSTRACT:

Background: This comment highlights the strengths of the meta-analysis by Longo et al. and reflects on areas where greater clarity or methodological consistency could strengthen future work.

INTRODUCTION

The meta-analysis presented by Longo *et al.* offers a thorough overview of rotator cuff re-tear rates and the factors that influence them. Their effort to combine higher-level evidence into a structured synthesis is particularly valuable, especially considering the clinical uncertainty that often surrounds tendon healing. While

the work provides important guidance for surgeons, a few points may benefit from further consideration in future analyses.

1. Tear Characteristics and Fatty Infiltration

The authors emphasise initial tear size as a key determinant of re-tear, yet the timing of re-tears across



different tear sizes remains unclear. Several earlier studies—especially those analysing supraspinatus muscle quality—have shown that both tear size and the degree of fatty infiltration are closely linked to structural failure after repair. This pattern has been consistently demonstrated in cohort studies and systematic reviews, many of which found fatty infiltration to be one of the most reliable predictors of re-tear. Bringing these variables into a more stratified analysis could help clinicians anticipate risk more precisely.

2. Rehabilitation-Related Factors

Another area that continues to generate debate is the role of early versus delayed motion. Some meta-analyses have suggested that early passive motion may increase the risk of re-tear in larger tears, whereas others have shown little to no difference when rehabilitation is started early, especially in randomized settings. Despite these conflicting reports, what remains clear is that reporting of rehabilitation protocols varies widely across studies. Standardising key elements—such as when passive motion begins, when active movement is allowed, and how load progression is handled—would make pooled data more reliable.

3. Biological and Surgical Variables

Biologic augmentation has been investigated in numerous studies, but with considerable heterogeneity in preparation methods and application techniques. This variability makes interpretation difficult. A more uniform approach to reporting augmentation strategies would help separate truly effective interventions from those whose benefits are uncertain. The same applies to imaging. Consistent use of recognised MRI grading systems, particularly for fatty infiltration and tendon retraction, would allow more meaningful comparisons across studies.

4. Relevance in Resource-Limited Settings

In India and other regions where access to specialised rehabilitation services may vary, the implications of such findings become even more important. Detailed reporting of surgical technique, postoperative movement protocols, and follow-up imaging can support the creation of reliable local data, which in turn helps guide treatment decisions in diverse practice environments.

Overall, Longo *et al.* have synthesised an important body of evidence and highlighted several trends that clinicians frequently encounter. Their work also brings attention to the need for more standardised reporting in future literature.

CONCLUSIONS

The review by Longo *et al.* adds valuable clarity to the understanding of rotator cuff re-tear patterns. Future studies will benefit from more consistent imaging parameters, stratified evaluation of tear characteristics, and clear rehabilitation timelines to enhance the practical use of pooled findings.

Abbreviations

PROM – Passive range of motion

ROM – Range of motion

RCT – Randomized controlled trial

PRP – Platelet-rich plasma

Declarations

Competing Interests

The author declares no competing interests.

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Authors' Contributions

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