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Clinical outcome and long term follow-up after failed arthroscopic repair of massive rotator cuff tear – who can go to conservative treatment instead of revision?

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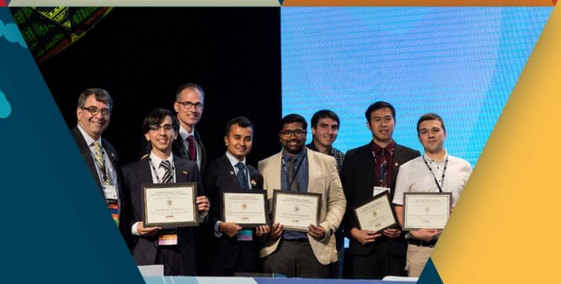

Faculty Disclosure Information

- Nothing to disclosure

Background

- Arthroscopic repair of massive rotator cuff tear (ARMRCT) has a high failure rate.
- Failed ARMRCT presents a surgical dilemma, especially for revision.
- Some patients with retear still show functional improvement.
- **Study Aim:** Identify which patients can avoid revision surgery and be managed conservatively.

Methods

- **Design:** Retrospective cohort study
- **Period:** Jan 2012 – Jan 2016
- **Inclusion:**
  - Massive RCT treated arthroscopically
  - Pre-op MRI and intra-op confirmation

Methods

- **Failure Definition:** Sugaya type IV or V on 6-month MRI
- **Outcome Measures:**
  - ASES & UCLA scores
  - Risk factor analysis via multivariate regression

Patient Demographics

- Failed repairs: 132 (35.9%)
- Excluded: 10 lost follow-up, 8 deceased
- Final cohort: 114 patients
  - Mean age: 63.2 ± 8.3 years
  - Female: 53.5%, Male: 46.5%
  - Sugaya IV: 68 (59.6%)
  - Sugaya V: 46 (39.4%)

Reoperation Statistics

- Total reoperations: 21/114 (18.4%)
  - Sugaya IV: 2 patients
  - Sugaya V: 19 patients
- Types of revision procedures:
  - 1 debridement for infection
  - 4 revision repairs
  - 4 superior capsule reconstruction
  - 12 reverse shoulder arthroplasty

Functional Outcome (Non-revision Group)

- Patients managed conservatively: 93
- **Follow-up period:** Mean 9.8 years (range 8.2–10.6)
- **ASES Score:**
  - Pre-op: 37.2 ± 4.83
  - Latest: 73.6 ± 10.3 ($p<0.001$)
- **UCLA Score:**
  - Pre-op: 9.02 ± 4.83
  - Latest: 24.6 ± 3.72 ($p<0.001$)

Risk Factor Analysis

- **Multivariate regression findings:**
  - **Only significant risk factor for revision:** Sugaya type V
  - Adjusted OR: 14.2
  - 95% CI: 2.95 – 68.8

Discussion

- Majority (81.5%) of failed ARMRCT patients did not require revision surgery.

- Significant long-term functional improvement noted.

- Conservative management can be sufficient, especially in Sugaya type IV.

- **Sugaya type V** is a **strong predictor** of needing further surgery.

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Conclusion

- Failed ARMRCT does **not always require revision surgery**.
- Long-term outcomes with conservative treatment are acceptable for most.
- **Sugaya type V** should prompt **closer monitoring** and early surgical planning.
- Classification-based approach can guide decision-making post-failure.

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