Poster 69: Mid-Term Outcomes of Arthroscopic Superior Capsular Reconstruction With Acellular Dermal Allograft

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Disclosures

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- **Daniel Cognetti, MD,** reports being an editorial board member for Arthroscopy Journal and receives grant support from AANA related to the current study
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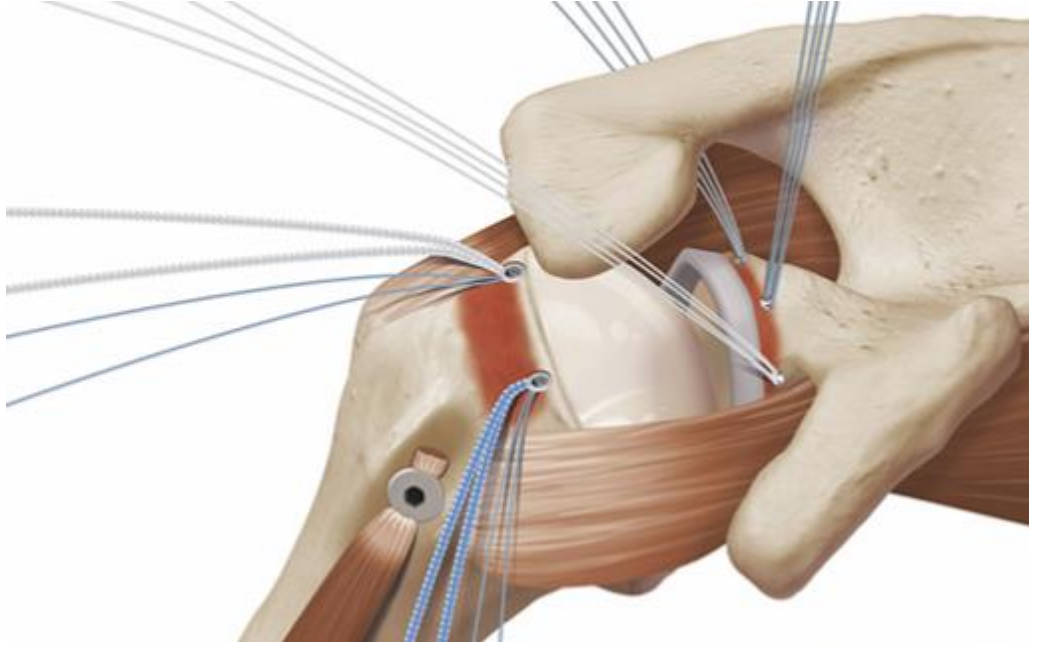
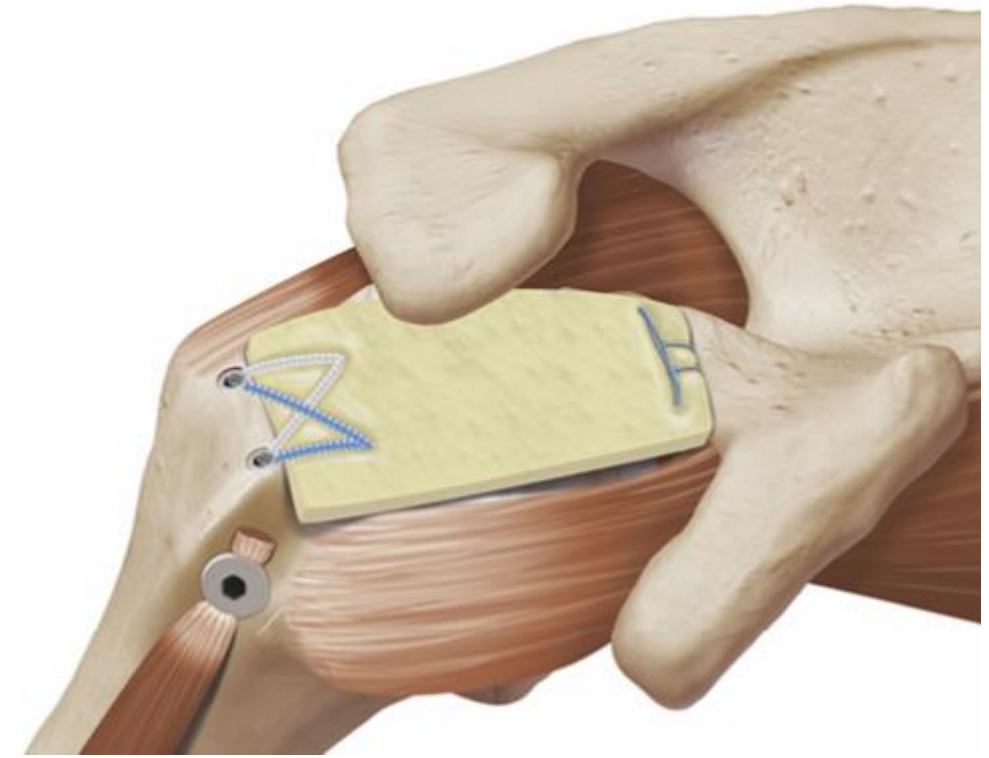
Objective

- To characterize minimum five-year clinical and radiographic outcomes of SCR with dermal allograft

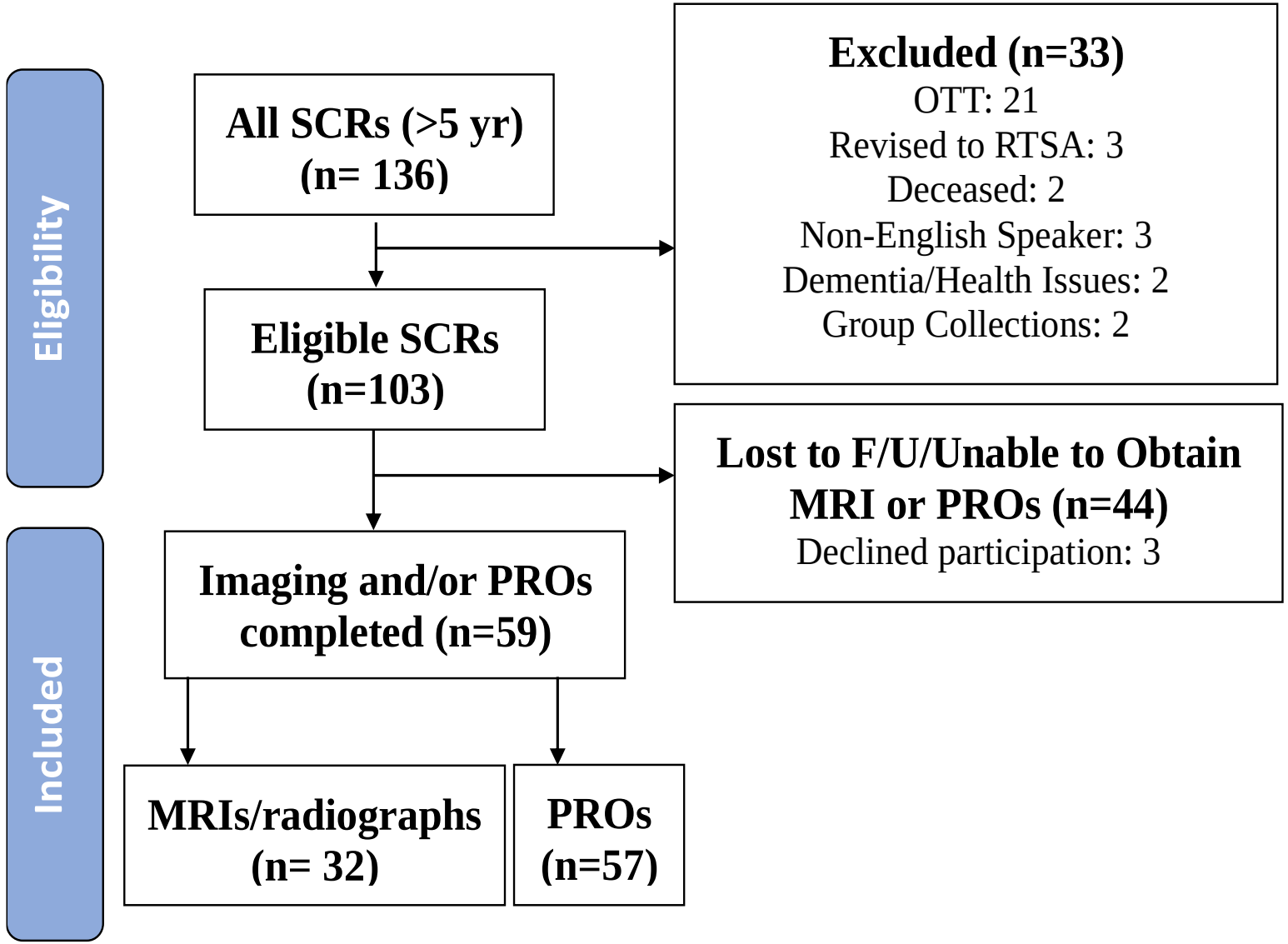
Methods

- Case Series
  - Single surgeon
  - 2014-2018
- Minimum 5 years F/U
- Outcomes:
  - PROs
  - Radiographs and MRI
    - *Independent MSK radiologist reviewer*
  - Complications





Study Flowchart



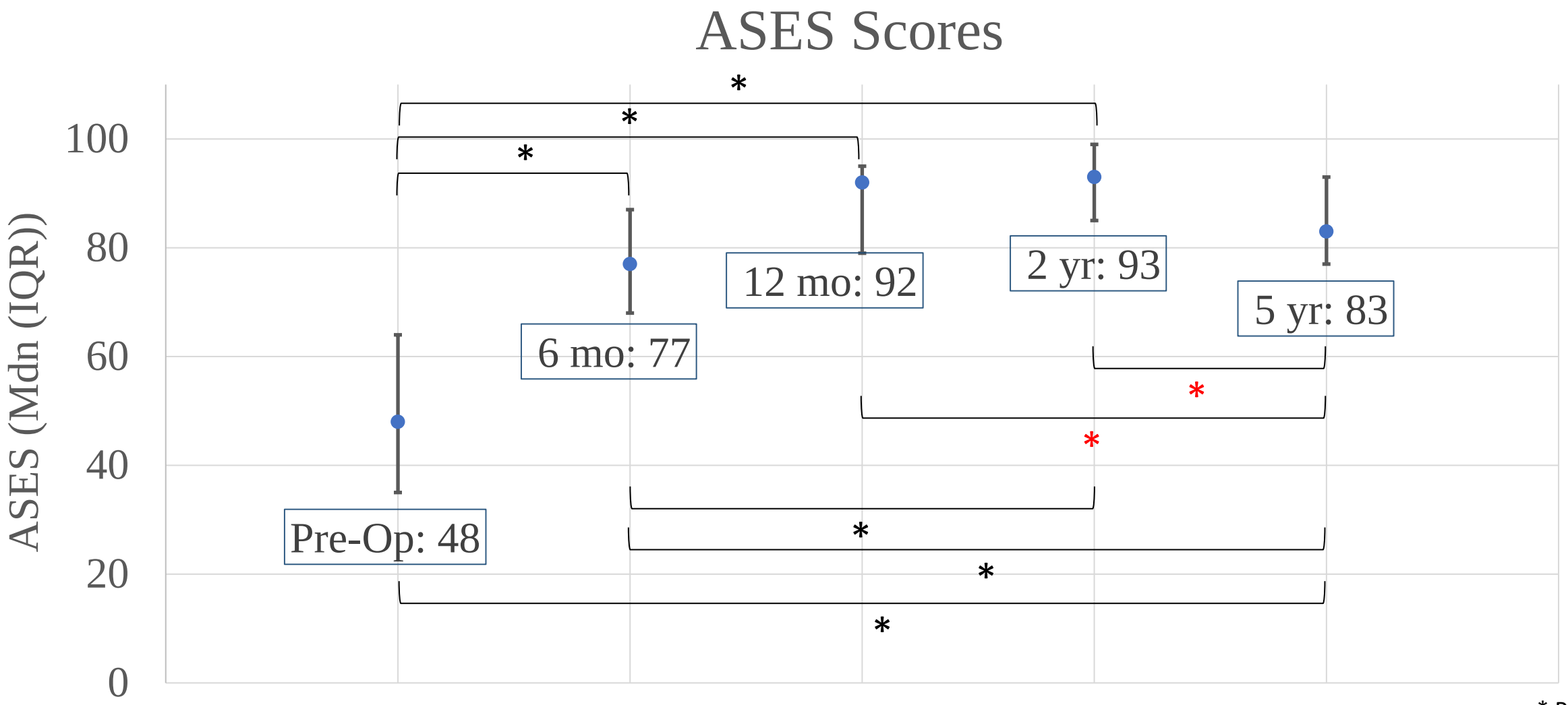
OTT: Over the top repairs

Demographics

- Median Age: 67 years (IQR 64, 71)
- Mean F/U: 6.2 years (IQR 5.4, 6.8)
- Gender: 40 M – 19 F
- 32% had prior cuff repair (n=18)

IQR: Interquartile Range

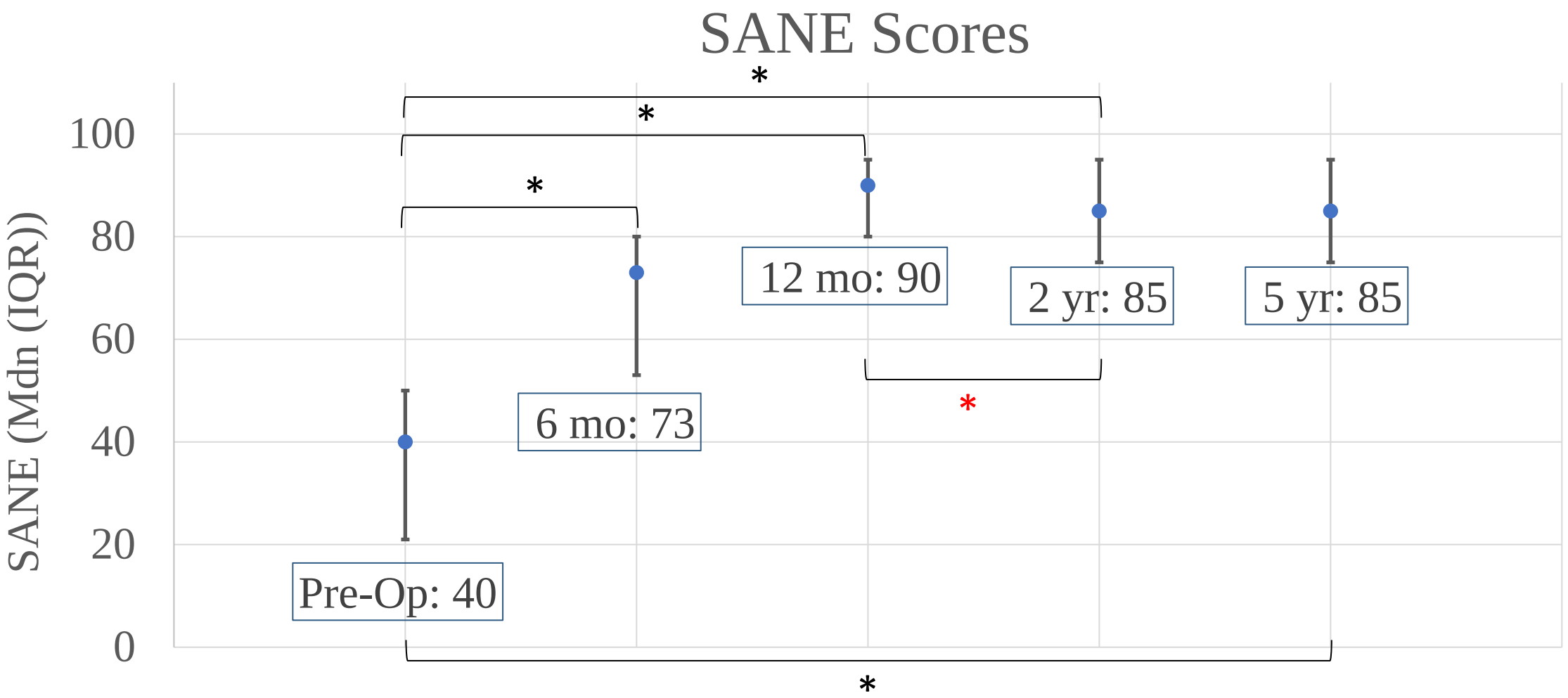
Results



* P <0.01

*RED: significant decrease

Results



* P <0.01

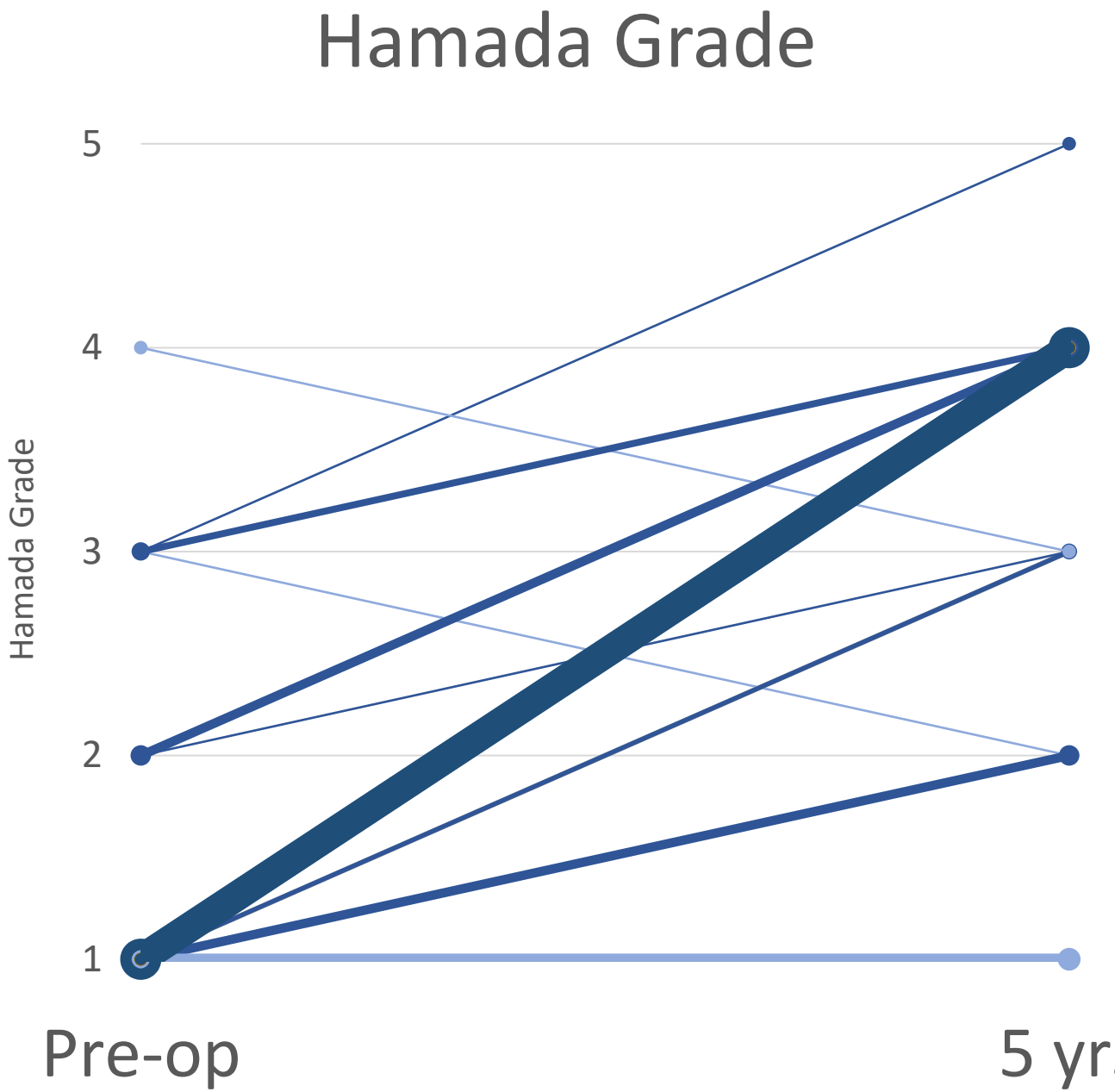
*RED: significant decrease

Results

VAS Pain

- Improved pain from pre-op to 5 yrs (P<0.001)
  - *…but pain worsened from 12 mo to 5 yrs (P<0.001)*
    - Pre-op: 5 (IQR 3,7)
    - 12 mo: 0 (IQR 0,1)
    - 5 yr: 1 (IQR 1,3)

Results



*line weight based on # of observations

Results

Radiographs and MRI

- **Worse Hamada Grade** at 5 years compared to pre-op
  - P<0.001
- **Diminished AHI** at 5 years compared to pre-op, immediate post-op and 12 mo post-op
  - Pre-op: 6.3 mm (4.2, 8.0)
  - 2-6 week postop: 7.5 mm (6.5, 9.4)
  - 12 mo: 7.9 mm (6.5, 9.4)
  - 5 yr: 3.5 mm (2, 5)
    - P<0.001
- **Infraspinatus atrophy** worsened
  - P<0.001; no difference in supraspinatus or subscapularis

AHI: Acromiohumeral interval

Results

MRI/Graft Tear

- Hasegawa Classification
  - I and II (intact): 5
  - III (thinned): 1
  - IV (minor discontinuity): 5 (16%)
  - **V (major discontinuity): 21 (66%)**

Discussion

- **Independent MSK radiologist review in this study vs prior analyses**
  - Autograft failure rates are likely similar (Baek et al.)

- **Diminishing utilization of SCR**
  - What is its role in 2024?
    - **Clinically: maintained mid-term outcomes as a joint preserving procedure**
    - **Structurally: an interim reconstructive procedure for most patients**

Conclusion

SCR with dermal allograft results in **substantially improved clinical outcomes at mid-term follow-up**, with a low overall reoperation rate.

However, these **outcomes may diminish slightly with time** coinciding with **progression of cuff tear arthropathy.**

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