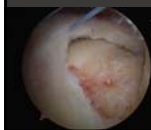


Rotator Cuff Fixation and Rehab: Where are we now??

Derek Cuff, M.D.
Suncoast Orthopaedic Surgery and Sports Medicine

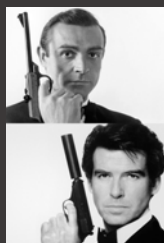
Current Solutions in Shoulder and Elbow Surgery
February 1-3 2018



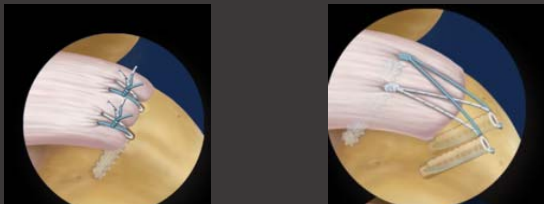
Goals

- 1. Update on rotator cuff repair technique- Do we have a definitive answer?
- 2. Discuss current status of RTC rehab and changes over last 10 years

Great debates

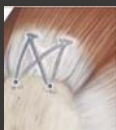


RTC fixation and rehab



RTC fixation and rehab

- Pub med search
- 72 articles looking as SR versus DR
 - Biomechanical strength
 - Healing rates
 - Clinical outcomes
 - Patient satisfaction



RTC fixation and rehab

- Problem?
- Study fragility- numbers issue
- Difficult to interpret data due to high fragility index
- Meta-analysis tried to circumvent fragility
- Heterogeneity in meta-analysis problematic



RTC fixation and rehab

- Mascarenhas et al.- Arthroscopy 2014
 - Analysis of 8 overlapping meta-analysis
 - Patient outcomes- 6 MA= no difference, 2 MA avored DR for >3 cm tears
 - Structural healing- 3 MA high quality eval- All favored DR repair



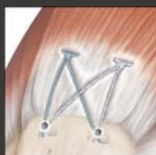
RTC fixation and rehab

- Gestalt from literature in 2018
 1. Suture bridge (TOE) biomechanically stronger
 2. Patient outcomes- No major differences
 3. Structural healing- favors SB (TOE), especially for larger tears
 4. Cost effectiveness may favor SB (TOE), especially >3cm - Huang et al- JBJS 2017



RTC fixation and rehab

- Other fixation debates
- To tie or not to tie?
- Medial knots- possible myotendinous failure?
- Knotless- more self re-inforcement?
 - Park et al- JSES 2014
 - Smith et al- JSES 2017



RTC fixation and rehab

- Other fixation debates
- Patch use- augments (Rotation medical, ArthroFLEX)
- Biologics- future direction



RTC fixation and rehab

- My preferred technique
- 1. TOE
- 2. I tie medial knots
- 3. No augments for me
- 4. Create GT vents, but no biologics

RTC fixation and rehab

- Once you fixed it, how do you rehab it?
- Another debate- early vs delayed rehab protocol?



RTC fixation and rehab

- Old dogma from open repairs- early passive ROM required
- With arthroscopic approach, is that really the case?
- Early protocol pros- prevent stiffness
- Delayed protocol pros- protect the repair



RTC rehab and fixation

- Cuff et al.-JSES 2012
- Level 1, prospective randomized study
- Early (33 pts) vs delayed (35 pts) groups
- No difference in ROM at 1 year
- Trend towards higher healing rate in delayed (91% vs 85%)
- Several studies examining same topic- study fragility and issue



RTC fixation and rehab

- | | |
|---|---|
| <ul style="list-style-type: none"> • Saltzman et al.- 2017 JSES • 9 MA reviewed • No difference in outcomes • Healing rates and re-tear rates equivocal • Slightly better ROM in early group • Subgroup analysis- larger tears=higher re-tear rate with early ROM | <ul style="list-style-type: none"> • Houck et al.- 2017 Am J of Sports Med • 7 MA reviewed • Early protocol had better ROM • Early protocol had higher re-tear rate |
|---|---|

RTC fixation and rehab

- What do the experts say?
 - Mollison et al- 2017 Ortho J of Sports Med
 - Survey of AAOSM and AANA
 - 704 responses, huge variability in protocols
 - No consensus BUT trend towards delayed protocol



RTC fixation and rehab

- Thigpen et al.- JSES 2016
- “The American Society of Shoulder and Elbow Therapists' consensus statement on rehabilitation following arthroscopic rotator cuff repair.”
- 2 weeks immobilization
- Weeks 2-6 passive ROM
- Weeks 6-12 AAROM then Active
- Strengthening at 12 weeks.



RTC fixation and rehab

- Gestalt from literature in 2018
 1. Data all over the place
 2. Trend towards delayed protocol over last 5-10 years
 3. Tear size may play a role, may want to individualize protocol

RTC fixation and rehab

- My preferred protocol
- 1. Delayed protocol with immobilizer and pendulums only for 6 weeks
- 2. ROM work progresses weeks 6-12
- 3. I just don't think you get much ranging them right away
 - Increased pain
 - Stresses repair

Summary

- Ton of conflicting data out there in 2018
- Trend towards more SB (TOE) repairs being done
- Trend towards more delayed ROM rehab protocols
- Can use literature to justify whichever approach you want
- Do what works for you

Thank You