Non-operative Tx of Cuff Tears

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Disclosures

No relevant conflicts related to this talk
Complicating Fact: Rotator cuff tears are very common

Prevalence Data

- US Population 2010 = 308.4 million
- Over Age 60 = 57 million
Prevalence Data

- What proportion of people over age 60 have full thickness cuff tears?
  - 10-41%

• Let’s be as conservative as possible
• Say 10% of Americans over 60 have full thickness cuff tears (real number is likely more...)
• 10% of 57 million is 5.7 million
• So at minimum, 5.7 million Americans have full thickness cuff tears
• That is a lot of people
Number of Rotator Cuff Surgeries in USA each Year

• Industry Estimates
  – 100,000-250,000/year
  – Includes Decompressions, Transfers, Debridements etc
  – Number of Rotator Cuff Repairs is a portion of this number

• Let’s be Generous and say 250,000 cuff repairs performed in USA/year
Prevalence Data

• What proportion of patients with full thickness cuff tears get surgery each year?
  – 250,000 surgeries/5,700,000 with tears
  – 4.4%
  – Number is Likely even less as we used conservative estimates!
Prevalence Data

• So...
• If >95% of people with full thickness rotator cuff tears are not getting surgery....
• Should we be operating on **every** cuff tear we see???????
Who will do well and who won’t

- Check FE in supine position
- Is there a positive scapular assist test
- Is the tear a cable intact pattern
The role of anterior deltoid reeducation in patients with massive irreparable degenerative rotator cuff tears

Ofer Levy, MD, MCh(Orth), Hannan Mullett, FRCS(TR & Orth), Sarah Roberts, Bsc(Hons), Bed(Hons), MCSP, and Stephen Copeland, FRCS, Reading, United Kingdom

- 17 elderly patients with massive cuff tears and pseudoparalysis
- Anterior deltoid rehabilitation program for at least 12 weeks
- Mean FE at baseline 40 degrees
- Mean Constant Score at baseline 26

- 9 month follow-up
  - Mean FE 160 degrees
  - Mean Constant Score 60
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452 subjects enrolled (final N=433)

F/U
- @ 1 yr: 94%
- @ 2 yrs 88%

87/433 (20%) patients failed and went to surgery

Most who went to surgery did so in first 12 weeks

Results do not seem to worsen with time
MOON Shoulder Group: Multicenter Cohort Study

Factors NOT associated with Surgery:
- number of tendons torn
- amount of retraction
- Forward elevation strength
- Age, sex, BMI, handedness
- Comorbidities
- SANE score
- pain level (ases Q#3)
- Work-comp status
- Duration of symptoms
- Education, occupation

Factors associated with Surgery:
- Patient expectations
- Activity level
- Smoking status
- Non Smokers more likely to have surgery
## Patient Expectations

What results do you expect from treatment?

(Fill in one circle for each question. If it does not apply to you please fill in the circle under 6)

<table>
<thead>
<tr>
<th></th>
<th>Not at all Likely</th>
<th>Slightly Likely</th>
<th>Somewhat Likely</th>
<th>Very Likely</th>
<th>Extremely Likely</th>
<th>Not Applicable</th>
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</thead>
<tbody>
<tr>
<td>1. Relief from symptoms (pain,</td>
<td>○</td>
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<tr>
<td>stiffness, swelling, numbness,</td>
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<td></td>
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<tr>
<td>weakness, instability)</td>
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<td>2. To do more everyday household</td>
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<td>or yard activities</td>
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<td>3. To sleep more comfortably</td>
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<tr>
<td>4. To go back to my usual job</td>
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<td>5. To exercise and do recreational</td>
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<td>activities</td>
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<td>6. To prevent future disability</td>
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</tbody>
</table>

- Scored 1-5
- Average score for the 6 items
- Range 1-5
- 1 = low
- 5 = high
Patient Expectations

HR = 0.53
95% CI = 0.39 – 0.73
p = 0.0001
# Shoulder-Specific Activity Level

- Scored 0 - 4
- Items summed
- Range 0-20
- 0 = low
- 20 = high

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Never or less than once a month</th>
<th>Once a month</th>
<th>Once a week</th>
<th>More than once a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying objects 8 pounds or heavier by hand (such as a bag of groceries)</td>
<td>○</td>
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<tr>
<td>Handling objects overhead</td>
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<td>Weight lifting or weight training with arms</td>
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<tr>
<td>Swinging motion (as in hitting a tennis ball, golf ball, baseball, or similar object)</td>
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<tr>
<td>Lifting objects 25 pounds or heavier (such as 3 gallons of water) NOT INCLUDING WEIGHT LIFTING</td>
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</table>
Shoulder-Specific Activity Level

HR = 1.59
95% CI = 1.15 – 2.19
p = 0.005
Smoking Status

HR = 0.30
95% CI = 0.1 – 0.8
p = 0.02
Thanks