

Conservative Treatment for full-thickness Supraspinatus Tendon Tears: Efficacy And Prognostic Factors

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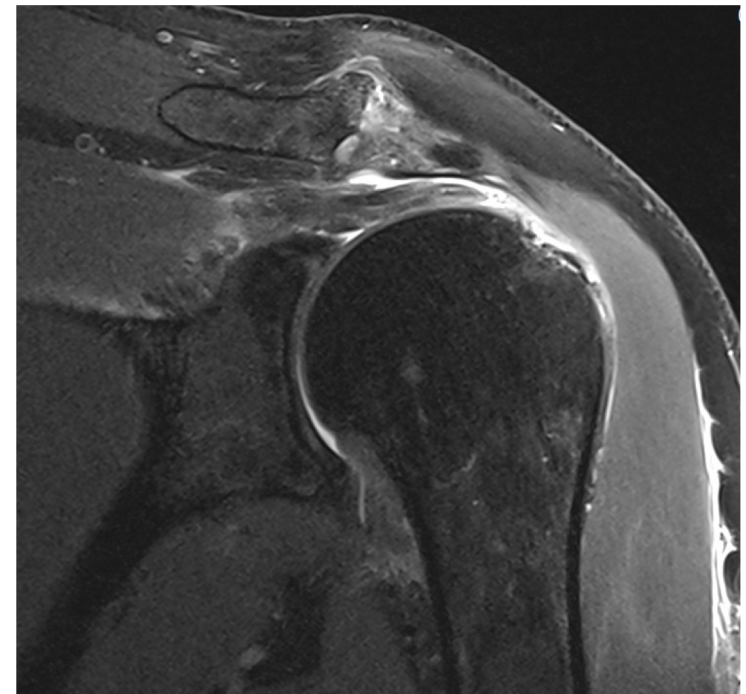
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None of the authors reports any potential conflict of interest associated with the contents of this study.

Conservative Therapy for Rotator Cuff Tears

- yield overall success-rate (no surgery) app. 75% (Petri 2016)
- Tears may progress in size (Moosmayer 2014)
- Negative predictive factors: age, female sex (Brophy 2014)



Conservative Therapy for Rotator Cuff Tears

- Persistent limitations of shoulder function (Boormann 2014)
- Lack of prognostic factors (Brophy 2014)



Image 2:
Example for conservative therapy. Cross arm adduction stretching using scapular stabilization to address posterior capsule tightness. From Reider, Davies, Provencher: Orthopaedic Rehabilitation of the Athlete, Elsevier, 2015

Materials and Methods

- 56 patients (33 women and 23 men)
- mean age 63.2 ± 10.7 (range, 41 to 84) years
- 56 shoulder joints (38 right-sided, 18 left-sided)

Inclusion criteria

- full-thickness supraspinatus tendon tear on MRI
- opted for non-operative treatment

Exclusion criteria

- prior trauma to shoulder

Evaluation tool

- Western Ontario Rotator Cuff (WORC) Index

Follow-up

- mean 66 days (range, 18 to 140 days)

Materials and Methods

Potential influence factors

- Age
- Gender
- affected side
- mean duration of symptoms
- prior pain medication
- prior conservative treatment
- patient expectation of the effectiveness of conservative treatment
- duration of follow-up

Results: Overall

- Mean WORC indices improved slightly yet statistically significant from 135.7 ± 5.2 to 123.2 ± 6.1 ($p=0.02$, Image 1)
- WORC indices at follow-up correlated with initial WORC indices ($r=0.585$, $p<0.001$).

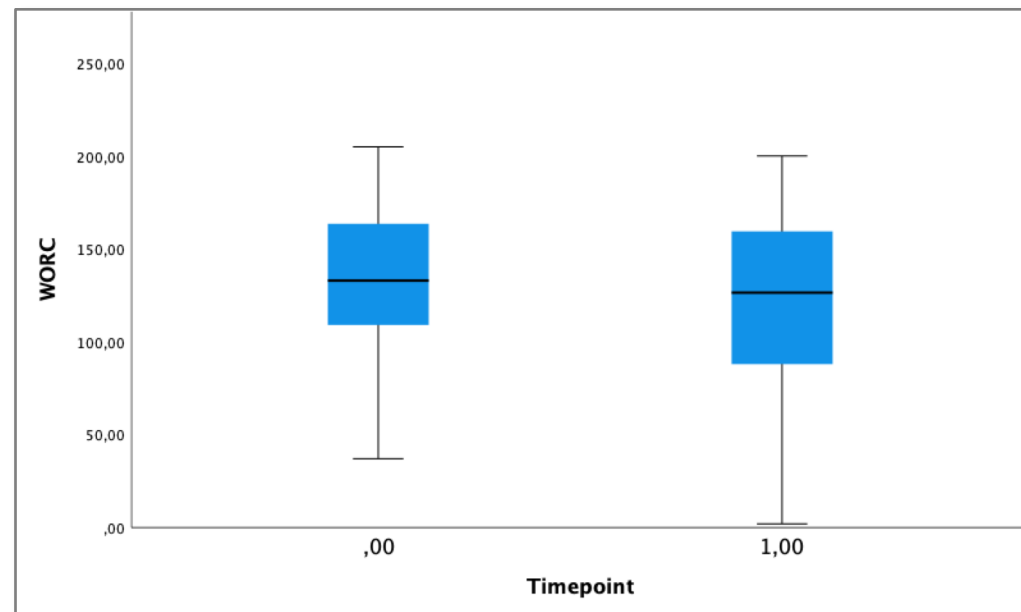


Image 1

Results: Influence Factors

No differences/ influence:

- sex
- age
- symptom duration
- Previous conservative treatment
- duration of follow-up

Side differences

Right-sided shoulder joints: higher WORC indices at baseline and follow-up ($p=0.03$ and 0.04 , respectively) but improvement did not differ between sides.

Results: Influence Factors

Pain medication

Patients taking pain medication at baseline had significantly higher WORC indices at baseline and follow-up ($p=0.025$ and 0.024 , respectively) but had similar improvement compared to patients without pain medication.

Patient expectations

Patients who thought they would need surgery at baseline had higher WORC indices at baseline and follow-up ($p=0.045$ and 0.044 , respectively) but similar improvement to patients who thought they would not need surgery.

Conclusion

- Short term-follow up: limited improvement
- Irrespective of patient age, affected side, symptom duration and severity, prior pain medication, or previous conservative treatment
- Association between baseline and follow-up presentation
- Patient expectations associated with baseline and follow-up presentation

Thank you!

