PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 61307

Title: Predictors of clinical outcomes after non-operative management of symptomatic full-thickness rotator cuff tears

Reviewer's code: 05329434

Position: Editorial Board

Academic degree: MD

Professional title: Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: United States

Manuscript submission date: 2020-12-15

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-12-16 19:10

Reviewer performed review: 2020-12-20 11:06

Review time: 3 Days and 15 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

1

SPECIFIC COMMENTS TO AUTHORS

This is a retrospective study aimed to identify potential factors that might be predictive of patient-reported outcomes after conservative treatment of complete rotator cuff tears (RCT). The topic is interesting and the investigation performed by the authors deserves attention for its originality. However, there are several limits of this study that must be highlighted, even though the authors themselves have already reported some of them. In the keywords, I suggest to include "rotator cuff tear" (instead of "rotator cuff injuries" and "rotator cuff")   (Page 1, L 16) Add "that" after "found" (Boorman et al. found that only the Rotator cuff…)   (Page 1, L 19) Change "are" with "might be" (.. at initial presentation that might be predictive…)   (Page 1, L 38-40) Patients' selection is a relevant bias of this study. Patients were identified from a shoulder registry and the exclusive inclusion criteria were a minimum 1-year follow up and a pre-treatment MRI. The choice to treat conservatively RCT is strictly influenced by the anatomical and clinical findings, as well as by patient's characteristic and expectations. The authors should at least specify some criteria used for the allocation in this treatment group (eg. preservation of active elevation, absence of superior migration of the humeral head, refusal of undergoing surgery, etc.), otherwise the reader might wrongly understand that all RCT can be indiscriminately treated either conservatively or surgically. They should also indicate the percentage (not only 151 as absolute number) of patients affected by RCT who were treated with rehab between 2009 and 2015.   (Page 3, L 57-58) The authors should specify how many patients were followed up for 1 year and how many for 2 years. These data are not reported in the text or in the tables.   (Page 3, L 59-63) Some points regarding MRI evaluation should be clarified. The authors should specify who analyzed MRIs for achieving the desired information (orthopaedic surgeons? radiologists? professionals with specific expertise in shoulder pathology?)   The morphological description of RCT is

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limited to the cuff tear index (CTI) and muscle fatty infiltration, but there are no data concerning the actual location of tendon tears and their extension (superior, postero-superior, antero-superior, combined). In fact, site and extension do not appear among the variables considered for linear regression analyses. It's not possible to equalize all RCT considering only the CTI and not the tear location, as well as it's not possible to speak generically of infraspinatus and subscapularis fatty infiltration without indicating the actual tendon damage. The authors should provide these data. CTI was described by J.C. Tauro in 2004 (Arthroscopy 20:13-21) as a gauge for RCT, that is calculated by multiplying the arthroscopically measured dimensions of the tear. The authors should specify if they have found other studies reporting the reliability of CTI calculated on MRI and not by arthroscopic measurements.   (Page 4, L 81-84) The choice of the predictor variables included for linear regression analyses is purely discretionary and the authors should justify this choice or at least specify that several other factors might be potential predictor variables. These include both clinical (positive impingement or lag signs, workers' compensation issues, etc.) and anatomical (acromial spur, LHB dislocation, etc.) variables. (Page 6, L 114) Add "in a selected population of patients" after "measures" (.. clinical outcome measures in a selected population of patients were significantly…)   (Page 8, L 174-182) The predictive impact of traumatic RCT at 2 years is poorly explained. I would suggest the author to consider another hypothesis: the possibility of traumatic events occurring on preexisting RCT. There are not previous MRI to prove the contrary. The magnitude of improvement might be related to the resolution of symptoms arising after simple contusions or sprains, that can be very disabling but only temporarily. Another aspect to keep in mind is that patients with preexisting RCT are more motivated to follow a rehab protocol after a traumatic event and RCT diagnosis by MRI.   (Page 9, L 190-194) There are other important limitations of the study and the authors should list the following: - the lack of any information about patients' compliance to rehab - the lack of

any information about RCT at follow up (no MRI) - the low statistical power due to the small sample size and the broad interval between 95% CI endpoints   (Page 21 Figure and Table Legends) There are no figure captions; please add. Abbreviations can be inserted at the bottom of figures and tables.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 61307

Title: Predictors of clinical outcomes after non-operative management of symptomatic full-thickness rotator cuff tears

Reviewer's code: 03891946

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor, Lecturer

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: United States

Manuscript submission date: 2020-12-15

Reviewer chosen by: Li Ma

Reviewer accepted review: 2020-12-16 09:10

Reviewer performed review: 2020-12-25 02:14

Review time: 8 Days and 17 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This topic is important, but the sample size is relatively small.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Orthopedics

Manuscript NO: 61307

Title: Predictors of clinical outcomes after non-operative management of symptomatic full-thickness rotator cuff tears

Reviewer's code: 05329434

Position: Editorial Board

Academic degree: MD

Professional title: Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: United States

Manuscript submission date: 2020-12-15

Reviewer chosen by: Le Zhang

Reviewer accepted review: 2021-01-20 11:56

Reviewer performed review: 2021-01-20 12:34

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

No further changes requested. (Only one typing mistake in the last paragraph of Discussion: correct "lack if information" with "lack of information")