PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 77874

Title: Role of the posterior deep deltoid ligament in ankle fracture stability: A biomechanical cadaver study

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05098908

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: Italy

Author's Country/Territory: United Kingdom

Manuscript submission date: 2022-05-25

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-06-03 16:44

Reviewer performed review: 2022-06-03 17:06

Review time: 1 Hour

<table>
<thead>
<tr>
<th>Scientific quality</th>
<th>Grade A: Excellent</th>
<th>Grade B: Very good</th>
<th>Grade C: Good</th>
<th>Grade D: Fair</th>
<th>Grade E: Do not publish</th>
</tr>
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<tr>
<th>Language quality</th>
<th>Grade A: Priority publishing</th>
<th>Grade B: Minor language polishing</th>
<th>Grade C: A great deal of language polishing</th>
<th>Grade D: Rejection</th>
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<tr>
<th>Conclusion</th>
<th>Accept (High priority)</th>
<th>Accept (General priority)</th>
<th>Minor revision</th>
<th>Major revision</th>
<th>Rejection</th>
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<th>Re-review</th>
<th>Yes</th>
<th>No</th>
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The manuscript is a cadaver study aimed to investigate the role of the posterior deep deltoid ligament in ankle fracture stability. Four matched pairs of cadaveric limbs were tested for stability both when axially loaded and under external rotation stress. Four matched pairs of cadaveric limbs (8 specimens) were tested for stability when axially loaded to 750N with a custom rig. Specimens were tested through increasing stages of SER injury in a stepwise fashion before restoring the lateral side with ORIF. Clinical photographs and radiographs were recorded at each step. I read the article with interest, the title is well thought out and faithfully reflects the content of the study, although it would be appropriate to refer that the Supination External Rotation (SER) injuries. The abstract is adequately developed, and it is useful to frame the purpose of the study. In the introduction, the characteristics of ankle fractures have been described. The materials and methods and the figures have been adequately development. The discussion is sufficiently described. Nevertheless, some major changes are needed to be considered suitable for publication. Comment 1: In the abstract: it would be appropriate to refer to the characteristics of the study. Comment 2: In the introduction: Some information about etiology, diagnosis and treatment of Fragility ankle fractures should be deepened please adding appropriate bibliographical references. (Roux S, et al (2018) "Risk of Subsequent Fragility Fractures Observed After Low-Trauma Ankle Fractures"). Comment 3: In the introduction: “The Lauge-Hansen Classification was introduced 70 years ago. The structures that are injured progress in an orderly fashion, depending upon the position of the foot at the time of injury and the type of force applied." Please adding appropriate bibliographical references. Comment 4: In the
introduction: It seems that the aim of your study is conflicting in the abstract and the introduction, please clarify this important aspect. Comment 5: In the materials and method: please clearly indicate the inclusion and exclusion criteria in this study. Comment 6: In the materials and method: Please improve figures and tables from a graphic point of view. Comment 7: In the discussion: It would be appropriate to refer to previous studies carried out on the same topic, for example: (Testa G, et al (2019) "Negative prognostic factors in surgical treatment for trimalleolar fractures"). Comment 8: It seems that the conclusions of your study differ from those described in the abstract, please clarify this important aspect. Comment 9: Finally, additional English editing is needed. The Non-Native Speakers of English Editing Certificate was not signed.
Name of journal: *World Journal of Orthopedics*

Manuscript NO: 77874

Title: Role of the posterior deep deltoid ligament in ankle fracture stability: A biomechanical cadaver study

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05539060

Position: Peer Reviewer

Academic degree: MD, MSc

Professional title: Director, Doctor, Lecturer, Senior Researcher

Reviewer’s Country/Territory: Iran

Author’s Country/Territory: United Kingdom

Manuscript submission date: 2022-05-25

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-07-14 13:12

Reviewer performed review: 2022-07-17 06:27

Review time: 2 Days and 17 Hours

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<td>[ ] Minor revision</td>
<td>[ ] Major revision</td>
<td>[ ] Rejection</td>
</tr>
<tr>
<td>Re-review</td>
<td>[ ] Yes</td>
<td>[ ] No</td>
<td></td>
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SPECIFIC COMMENTS TO AUTHORS
I had the opportunity of reading the paper entitled "Role of the posterior deep deltoid ligament in ankle fracture stability: a biomechanical cadaver study." The aim of study is not clear. Methods section is little mixed up. You've submitted the paper with comments and highlights. Writing is not appropriate. Please define the abbreviations in abstract. I do not recommend publication.
RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Orthopedics
Manuscript NO: 77874
Title: Role of the posterior deep deltoid ligament in ankle fracture stability: A biomechanical cadaver study
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Reviewer’s code: 05098908
Position: Editorial Board
Academic degree: MD, PhD
Professional title: Associate Professor
Reviewer’s Country/Territory: Italy
Author’s Country/Territory: United Kingdom
Manuscript submission date: 2022-05-25
Reviewer chosen by: Jing-Jie Wang
Reviewer accepted review: 2022-09-02 05:06
Reviewer performed review: 2022-09-02 18:38
Review time: 13 Hours

Scientific quality

| Grade A: Excellent | Grade B: Very good | Grade C: Good | Grade D: Fair | Grade E: Do not publish |

Language quality

| 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 | Major revision | Rejection |

Peer-reviewer

Peer-Review: Anonymous
SPECIFIC COMMENTS TO AUTHORS
Thank you for making the requested revisions, now the article is suitable for publication.