PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 85699

Title: Mechanical analysis of the femoral neck dynamic intersection system with different nail angles and clinical applications

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 06313495

Position: Peer Reviewer

Academic degree: PhD

Professional title: Assistant Professor

Reviewer’s Country/Territory: Indonesia

Author’s Country/Territory: China

Manuscript submission date: 2023-05-11

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-05-18 19:40

Reviewer performed review: 2023-05-19 12:25

Review time: 16 Hours

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<th>Scientific quality</th>
<th>Grade A: Excellent</th>
<th>Grade B: Very good</th>
<th>Grade C: Good</th>
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<td>Grade D: Fair</td>
<td>Grade E: Do not publish</td>
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<td>Novelty of this manuscript</td>
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<td>Grade D: No novelty</td>
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<td>Creativity or innovation of this manuscript</td>
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Present submitted manuscript objective to compare the differences in mechanical stability of femoral neck fractures treated with different main nail angles of FNS by finite element analysis. It is a good manuscript; several comments need to addressed to the authors as follows. 1. In the present form, actually nothing really novel. The current works appears to be a replication or modified literature according to the lack of novelty. The authors must extensively describe the novel in their work. This work should be rejected due to a serious concern. 2. Previous literature related needs to explain in the introduction section consisting of their work, their novelty, and their limitations to show the gaps that intend to be filled in the present work. 3. It is suggested to the authors to make the objective of the present work become more clear to understand. 4. Recommended to the authors provide an additional figure in the introduction section with related submissions after revision to improve the article presentation. 5. To let the reader comprehend the workflow of the current study, the authors could include extra illustrations as a type of figure in the materials and methods rather than simply the main text as a present form. 6. The authors mandatory explains the urgency of performing
computational simulation in the introduction section. This approach brings several advantages such as lower cost and faster results compared to experimental and clinical study. Please incorporated this issue along with relevant reference as follows, doi: 10.1038/s41598-023-30725-6, 10.1016/j.heliyon.2022.e12050, 10.3390/met12081241.

7. The materials is present situated model should giving the assumption description as “homogeneous, isotropic, and linear elastic”. Please provide this explanation along with relevant reference as follows, doi: 10.3390/ma14247554, 10.3390/jfb13020064, and 10.3390/jfb12020038.

8. Is the present study performing mesh sensitivity/convergency study? This step is crucial do done for selecting appropriate number of element used without burden the computational simulation load, but still giving accurate results. Please include the explanation and results if the authors done it or state it as limitations if the authors does not perform in. Also, refer the relevant reference as follows, doi: 10.3390/biomedicines11030951, 10.3390/su142013413, and https://jurnaltribologi.mytribos.org/v33/JT-33-31-38.pdf.

9. The present computational simulation is lack of proper validation with experimental/clinical results. It is make the present study doubtful results under actual conditions. Please state this crucial point as present study’s limitation and refer the literature that providing experimental validation as follows, doi: 10.3390/ma16093298, 10.1177/14657503221144810, and 10.3390/biomedicines11020427.
# PEER-REVIEW REPORT

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**Reviewer’s code:** 02689304  
**Position:** Peer Reviewer  
**Academic degree:** MD  
**Professional title:** Doctor, Professor, Surgeon, Teacher  
**Reviewer’s Country/Territory:** Taiwan  
**Author’s Country/Territory:** China  
**Manuscript submission date:** 2023-05-11  
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**Reviewer accepted review:** 2023-05-25 04:05  
**Reviewer performed review:** 2023-05-30 14:13  
**Review time:** 5 Days and 10 Hours

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SPECIFIC COMMENTS TO AUTHORS
This manuscript is a basic study using the finite element analysis (FEA) technique. The authors used this technique to investigate the optimal angle of FNS to stabilize a femoral neck fracture. They concluded that 130° angle of FNS has the best stability among the 5 models. The framework of manuscript is intact and English writing is fluent (concomitantly supplemented with an English editing certificate). However, the description in Results of Abstract is not really smooth. The methodology of study is reasonable. Because such a mode of study has been historically used (known from PubMed) and the novelty is not particular, the creativity of this study is lowered. Some doubts require clarification. The framework of manuscript is intact and English writing is fluent (concomitantly supplemented with an English editing certificate). However, the description in Results of Abstract is not really smooth. The methodology of study is reasonable. Because such a mode of study has been historically used (known from PubMed) and the novelty is not particular, the creativity of this study is lowered. Some doubts require clarification: 1. The fracture is a common noun, which should be singular or plural. In the whole text, a fracture or fractures should be used. e.g.,
Introduction: line 1, 2; ---. 2. Do you study an intra-rater or an extra-rater agreement to support study reliability? 3. In M & M: Once FEA with full spelling is used, FEA should be used in the text thereafter. 4. In Discussion: line 1; Femoral neck fractures are associated with a high mortality rate and disability. Is it true, references? Based on the current literature, a high success rate of treatment with a low mortality rate can be predicted in both young adult and elderly patients. 5. In Discussion: line 6; Full spelling of FNS is unnecessary. 6. In Discussion: line 28,29; References 21,22,23 are cited. The failure rate is too high. All are out-of-date and recent articles should be cited. For displaced femoral neck fractures (type 3,4 Garden classification), 20% osteonecrosis and 10% nonunion are normally predicted. For non-displaced fractures, a less than 10% complication rate can be achieved.