PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases
Manuscript NO: 77338
Title: Efficacy of the femoral neck system in femoral neck fracture treatment in adults: A systematic review and meta-analysis
Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed
Peer-review model: Single blind
Reviewer’s code: 06297136
Position: Peer Reviewer
Academic degree: MD
Professional title: Doctor
Reviewer’s Country/Territory: Iran
Author’s Country/Territory: China
Manuscript submission date: 2022-04-25
Reviewer chosen by: AI Technique
Reviewer accepted review: 2022-04-25 17:58
Reviewer performed review: 2022-04-25 19:01
Review time: 1 Hour

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<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[ ] Grade E: Do not publish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>
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<tr>
<td>Language quality</td>
<td>[ ] Grade A: Priority publishing</td>
<td>[ ] Grade B: Minor language polishing</td>
<td>[ ] Grade C: A great deal of language polishing</td>
<td>[ ] Grade D: Rejection</td>
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<td>Conclusion</td>
<td>[ ] Accept (High priority)</td>
<td>[ ] Accept (General priority)</td>
<td>[ ] Minor revision</td>
<td>[ ] Major revision</td>
<td>[ ] Rejection</td>
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<td>Re-review</td>
<td>[ ] Yes</td>
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SPECIFIC COMMENTS TO AUTHORS
Hello The article is well written. I will mention a few points that need to be corrected:
1- sentence in the abstract: "However, there is a lack of evidence regarding the efficacy of FNS in the treatment of femoral fractures as compared to traditional internal fixation." That he says there is no evidence, there is no evidence in a systematic review and meta-analysis, or there is none at all. I think you mean there is no systematic review and meta-analysis. 2- In the goal section in the abstract: How do you intend to achieve your goal? By systematic review and meta-analysis? Mention your method. 3. Some keywords are not Mesh. 4. Mention PubMed search strategy. 5. Exclusion criteria: "(vi) its data was incomplete". What is meant by data that, if it does not exist, is incomplete? 6- The first two paragraphs discuss the repetition of the introduction in another language. It does not need to be repeated so much. Write a summary. 7. Mention suggestions at the end of the discussion. 8- Fig. 1: It is better to specify how many studies have been obtained in each database. For example, how many PubMed? How many Embase? Etc
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Title: Efficacy of the femoral neck system in femoral neck fracture treatment in adults: A systematic review and meta-analysis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 04152258

Position: Editorial Board

Academic degree: MD

Professional title: Assistant Professor, Staff Physician

Reviewer’s Country/Territory: United States

Author’s Country/Territory: China

Manuscript submission date: 2022-04-25

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-06-02 11:14

Reviewer performed review: 2022-06-04 14:38

Review time: 2 Days and 3 Hours

Scientific quality

[ ] Grade A: Excellent  [ ] Grade B: Very good  [ Y] 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
SPECIFIC COMMENTS TO AUTHORS
Thank you for your submission. The article is well done. I have minor suggestions: 1. QUADAS-2 has to be included. 2. SROC curves are needed. 3. Details of study included should be presented in tabular format.
Name of journal: World Journal of Clinical Cases

Manuscript NO: 77338

Title: Efficacy of the femoral neck system in femoral neck fracture treatment in adults: A systematic review and meta-analysis

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 02444767

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Associate Professor, Chairman

Reviewer’s Country/Territory: South Korea

Author’s Country/Territory: China

Manuscript submission date: 2022-04-25

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-05-30 05:17

Reviewer performed review: 2022-06-07 13:47

Review time: 8 Days and 8 Hours

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SPECIFIC COMMENTS TO AUTHORS
Thank you for submitting your hard work to the WJCC. The authors performed a systematic review regarding the efficacy of the Femoral Neck System in femoral neck fracture treatment in adults. As the number of femoral neck fracture is increasing world-wide as the age of population gets older and FNS gains recent popularity, the topic of this work might be interesting and important as well. According to inclusion and exclusion criteria, ten studies were selected for this systemic review and the authors reported that fracture healing time, femoral neck shortening, the rate of non-/delayed-union and HHS was better while blood loss was higher in the FNS. The operation time, the rate of internal fixation failure and AVN of femoral neck showed no difference between two groups. <General comments> In general, the methodology and the consequent results look sound to me, but the interpretation of the results does not appear in-depth, which reflects insufficient clinical or academic experience. For example, I don’t think that the term, ‘AVN of femoral neck’, might be appropriate for use or science; instead, most of traumatologists or hip surgeons may use ‘AVN of femoral head’ or ‘osteonecrosis of femoral head’. Also, several interpretations from the results in the Discussion part seems insufficient or deficient. Thus, lots in Discussion part might be revised to better reader’s understanding. <Specific Comments> - Line 55: Please write in lowercase. (Pooled) - Line 86: Please remove the underline. - Line 87: commonest common (or most common) - Line 179, 267, 360: Please separate the sentences. Also, overall manuscript, there are a lot of spacing errors. Please correct them - To compare the result after use of different implants, demographic data or those before operation between two groups should be compared would be important; fracture type, reduction...
quality, implant position and age of the group which reflects osteoporosis are 4 potential important factors to gain good result after treating proximal femur fractures in addition to implants choice such as CCS or FNS. Time taken from injury to surgery may be also an important factor. Additional analysis regarding these would improve the completeness and value of this study. If it is difficult to do this, they can be mentioned as limitations. - Line 254 AVN of femoral neck? Do you mean AVN (Osteonecrosis) of femoral head? - The Discussion part may start with brief background, study method and the main findings in your study to improve reader’s understanding. Usually, these take 3-4 sentences in one paragraph. Then, in another, separate paragraph, the authors may describe the result one-by-one with authors’ interpretation or hypothesis. - Line 267-290 may be placed in the Introduction part (Background and Purpose of the study) and summarized in 1-2 sentences in Discussion part - Line 296 former sentence for Method and latter for Result (operation time, blood loss) may be used in different paragraphs. - Line 299-301 looks weird. Reduction is independent from the type of implants and same closed reduction technique for the femoral neck fracture could be achieved regardless of implant type. If someone perform open reduction for femoral neck fracture, the blood loss would increase according the description, but the operation might also take longer contrary to the study finding. Although FNS can be implanted with minimally invasive technique (said by the company), it has been introduced recently and may need learning curve. Moreover, sometimes it may lead to surgical trauma to implant FNS with a small window using MIS. All of these may lead to similar operation time, but more blood loss. - Line 301: the connector ‘in addition’ seems improper for use considering the context. - Line 301-303 most of fracture healing may gain within/around 3 months after operation, but HHS may be evaluated at 6 months or 1 year (it contains pain, ADL ability, the walking distance etc). Thus, the interpretation that the reason for higher HHS in FNS group originate from early fracture healing
seem insufficient. What do you think that the less shortening and subsequent less loss of vertical and horizontal offset may affect higher HHS (as described in Line 312-314)? Line 304-305 should be placed in Methods part.

1) Screw loosening may be affected by fracture type, quality of bone and reduction and implant position; thus it might show less difference between two groups

2) Screw back-off. What the cut-off value for screw back-off? 0.1 mm? 5 mm? And one of advantage of FNS is that it may show little or less back-off because it resist to the sliding and has barrel for sliding. Thus, FNS show less back-off when compared with CCS. Moreover, if shortening was less in FNS, it would be reasonable to show less back-off

3) Screw penetration is usually followed after AVN or nonunion. According to these, why did fixation failure showed no difference between two groups? Please provide the authors’ hypothesis.

-Line 307-312 looks inappropriate to be described because the authors did not compare with arthroplasty or did not use this criteria for shortening. Both arthroplasty and degree of shortening are apart from this study methods.

-Line 315-331 can be summarized. Line 317-319 It’s not clear which fixation system showed less shortening (FNS or CCS?)

-Line 327 ‘sliding pressure’ Do you mean sliding force?

-Line 332-350 Many authors point the vascular theory such as injury to lateral retinacular artery as for causing AVN and, time to surgery, fracture type and reduction quality may be major determinant for occurrence of AVN regardless of implants type. Actually, I cannot understand why the authors put such an importance to implant size as the cause of AVN. Similarly, fracture healing may be also affected by fracture type, reduction and bone quality in addition to implant system. Thus, this conclusion for fracture healing or AVN seems a bit hasty.

To me, this is an interesting study, but may also needs to be further revised in order to be published in the WJCC.

Thank you.