Reviewer’s report

Title: Comparison of functional metacarpal splint and ulnar gutter splint in the treatment of fifth metacarpal neck fractures: A prospective comparative study

Version: 0 Date: 07 Feb 2019

Reviewer: Kosuke Uehara

Reviewer's report:

This study compared the outcome between FMS and UGS for fracture of fifth metacarpal bone fracture. The authors concluded that FMS was adequate to prevent loss of reduction and obtain faster improvement in clinical scores with earlier gain of normal grip strength compared with UGS, however in the long term, both FMS and UGS methods showed similar radiological and clinical outcomes.

Specific comments
Line 118. Please consider to explain how you decide the necessary case number of this study.

Line 112 "The treatment plan was applied to patients in a consecutive manner based on referral time. " In limitation section (Line 295), it was mentioned that this was not a randomized study, if so, could you please consider describing how to decide which procedure was applied for each patient more clearly.

Line 175. This study included much less than 100 cases, therefore, please consider rounding off results with the percentage to the nearest whole number.

Line 195 "c Post Hoc: Bonferroni testi"
It seems to be a typo. could you please correct it?
What was the level of significance for the post hoc test using Bonferroni test in this study?

Table 2, Table 3. For these analysis, not "Repeated Measures Test, but "two-way ANOVA seems to be appropriate to avoid multiple comparisons.

Line 275-276. "Section 2 pertaining to athletes and Section 3 to performing artists" The original DASH comprises section 2 of work module, and section 3 of sports/performing arts module in accordance with The DASH and QuickDASH outcome measure user's manual, third edition. (Kennedy CA, Beaton DE, Solway S, McConnell S, Bombardier C. Toronto, Ontario: Institute for Work & Health, 2011). Which version of DASH did you use? Please consider to mention more in detail. Moreover, "Quick" should be accurately described in italic characters.

Line 295. Maximum age included this study was 58 years old, so this study results cannot simply apply to elderly people. Please consider to include this point in the limitation section.

Line 296. "Due to the great healing and functional capacity of 5th metacarpal neck fractures especially
in the young population, 18 patients did not return for routine evaluations and were lost to follow-up."
I think that sometimes patient tend to drop out from the study due to a bad result or a dissatisfaction.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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