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: 1 Date: 03 Mar 2019

Reviewer: David Warwick

Reviewer's report:

STRONG POINTS
* Although the quasi-randomization remains an unnecessary flaw, the study tries to derive clinically relevant information- whether a functional splint is better than a gutter splint.

POINTS TO IMPROVE
* In the results section of the Abstract and the paper, state all results as whole numbers without decimal points. The sample size is small; the source data with regards to angulation
* Explain the provenance of the power analysis (lines 112-3)
* The Methods and Discussion is far too long; they can be substantially shortened without diluting their integrity

POINTS THAT CANNOT BE IMPROVED
* There is no control group with "no splint" at all. This is a major flaw that must be acknowledged. The Introduction and Discussion should describe evidence for no splinting
* There are no inclusion criteria beyond "isolated and closed neck fractures" (line 117). An acceptable angulation after reduction was deemed to be 40 degrees (lines 123). So surely the inclusion criterion was >40 degrees? If so this must be stated; if not then the study is invalidated since subjects may have been satisfactory before they even entered the study.
* My suspicion here is confirmed in Table 2 where the mean fracture angulation prior to manipulation was about 31 degrees. This appears to me to be a fatal flaw. Should not all patients with an angulation less than 40 degrees be excluded. If so then the sample size will be insufficient. If this is so then the study is fatally flawed, especially when considering that there was no "no splint" group

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.
No

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

No

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:

Needs some language corrections before being published

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