Reviewer's report

Title: Can Body Mass Index influence the fracture zone in the fifth metatarsal base? A retrospective review

Version: 1 Date: 08 Dec 2019

Reviewer: Tom Walsh

Reviewer's report:

Thank you for the opportunity to review this revised manuscript.

Title: The relationship between Body Mass Index and the localization of fifth metatarsal base fracture: an epidemiological study

Major

* I appreciate the response regarding my initial query of the use of 'epidemiological' in the title, although I still believe that this may be somewhat overstating the type of study that is presented. This is in essence a retrospective review of a small sample with three types of fractures. Given the absence of a control, and the small numbers in each group (only 12 people were obese), a reader could erroneously conclude that elevated BMI increases the risk of one fracture.

* I agree that a binary logistic regression would not be suitable for this study, but could a multinomial logistic regression be performed?

* It may be best to temper the conclusion. Given the design, it may be overstating the results to say that the results of this study 'show that BMI influences the zone of fracture'. This implies a causative relationship. This is particularly important to be clear with the reader as the inclusion criteria (requiring a specific type of injury) and the self-report height and weight (which is frequently incorrect) may limit the generalisability of the findings

Minor

* The first paragraph of the discussion appears to include a variant of what was reported in the background regarding the zone fractures. Is it necessary?
* The categories for BMI need a minor edit. Overweight should be 25.0 - 29.9, not 24.9 and 29.9.

* The standard deviation initialism needs defining in the methods section, prior to use in the results.

* Unit of measure should come after the SD value, not between the mean and SD values.

* The limitation section - final sentence, 'Lastly, and lastly, results…. ' needs correcting

* In the limitation section - it is difficult to understand why treating BMI as a continuous variable overcomes the bias of incorrect weight and height being provided by patients. Are you able to explain this further?

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An article whose findings are important to those with closely related research interests

Quality of written English
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