Reviewer’s report

Title: Mortality, complications and long-term functional outcome in elderly patients with fragility fractures of the acetabulum

Version: 0 Date: 28 Nov 2019

Reviewer: Mika Rollmann

Reviewer's report:

Review BMC Geriatrics

Mortality, complications and functional outcome in elderly patients with fragility fractures of the acetabulum

Thank you for your manuscript on a very interesting and up-to-date topic. Especially the results in the functional outcome after geriatric acetabular fractures in these very vulnerable group of patients is of great value. However, some remarks and recommendations remain:

The authors examined the mortality, complications and functional outcome of elderly patients with fragility fractures of the acetabulum. 176 patients were included in the study. The overall mortality was assessed through personal contact or the national social insurance database. 56.3% of patients had died at the time of final follow up. There was no significant difference in mortality, functional outcome and conversion to THA. Differences in rate of complications and duration of hospital stay.

Background

Consider revision by a native speaker.

Methods

The methods are described and are suitable. The modified Merle d'Aubigné score has a high interevaluator reliability. There are still some comments remaining:

How many times were the patients contacted? Only by phone? Mail? Informed consent via phone? What data is assessed in the 'prospective database'? Please state in the methods section. ASA for example is not mentioned in the methods section, but then comes up in the results section?

Page 4, line 56:
Consider revision of language:
Statistical analysis was performed using…

Page 5, line 1:
Fisher's exact test
Results
Figure 1 clearly marks all drop-outs

Page 5, line 45:
Consider changing: lung embolism to pulmonary embolism

Page 5, line 52:
Consider changing: Before the acetabulum fracture… to Prior to the acetabular fracture…

Page 5, lines 54-56:
143 patients of the 176 lived at home prior to the acetabular fracture. 93 patients were able to return home which, in my opinion accounts for 65% of patients (93/143).

Page 6, line 1:
Consider revision for clarification:
Twenty of the 161 patients… had undergone secondary conversion to…

Page 6, lines 2-3:
58 patients non-operative and 88 patients operative treatment adds up to 146 patients
on page 5 lines 23-28 you state:
67 patients non operative and 92 patients internal fixation (10 percutaneous and 82 ORIF) adds up to 159 patients and two received THA primarily
Please clarify!

Only 32% of patients were available for the 'final follow-up' which comprises the validity of the study, however you discussed this in your discussion section and is often a problem in studies including geriatric patients.

Discussion

Page 7, lines 5-7:
You state that the 47 patients available for final follow-up show a 'good functional outcome', however the result of the Merle d'Aubigné score stated on page 6, lines 7-8 is 14/18 which is a 'fair' outcome?

Page 8, lines 2-4:
You state that the findings of this study may help surgeons in the decision-making process. How?

Overall a revision by a native speaker is recommended.
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.

Unable to assess

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:

Needs some language corrections before being published

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