Reviewer’s report

Title: Mechanisms of adhesive small bowel obstruction and outcome of surgery; a population-based study

Version: 0 Date: 09 Jan 2020

Reviewer: Jeroen Hol

Reviewer's report:

The authors point out correctly that adhesions are a major problem in abdominal surgery. I think the overall design of this study is really clear and the results provide some insight in the burden of adhesions. However the manuscript needs some work. There are some items that need to be checked:

Introduction: I do not completely agree with the authors. Literature regarding a more conservative attitude towards SBO is outdated and early surgery is becoming more standard practice.

Methods: If a minimal follow-up of five years was chosen, why was the time period up to December 2011 instead of December 2014 for example? There are a lot of numbers and results stated in the methods section, I suppose these are meant to be placed in the results section.

Patients section: I could not imagine any patient undergoing previous laparoscopic surgery, instead of open surgery only? At what time point was there chosen to operate on? Was there any protocol?

Statistics: was any power calculation performed?

Table 1: In the right Colum: 188 should be 189? 82 should be 81?

Furthermore, the numbers under the type of surgery section do not add up (e.g. >100% per column, and more than the numbers stated below?).

Results: Some numbers are stated without percentage, which makes it hard to read. How was the mechanism of adhesion defined? As this is highly subjective, yet an important outcome measure.

Table 3: Mean numbers should be given with standard deviation or median and range.

It is unclear to me how many patients died during follow-up.

Discussion: I would like to see a more balanced discussion regarding adhesiolysis and a risk of enterotomy/complications. Adhesiolysis is a known risk factor for morbidity.

Patients are called old and frail, how was frail defined?
Conclusion: Long delay to surgery is supposed to be a risk factor for morbidity. However, maybe there is some bias here, as this is a highly selected group.

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

No

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
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