Peer Review File

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Review Comments

The authors would like to thank the reviewer for their thorough consideration of our manuscript. We appreciate the kind words the reviewer had for our work, and the important suggestions that they have provided. We have addressed their comments and incorporated the following changes to improve the quality of our paper.

Comment 1: This manuscript may be improved with the addition of emergency vs elective vs nonelective urgent operation.

Reply 1: Thank you for this suggestion. The authors agree that addition of emergency, and non-elective urgent operations to this cohort of patients that underwent elective index operations would provide an interesting comparison to see if the nature of the index operation played a role in any potential benefit derived from statin therapy, and broaden the scope and increase the generalisability of the findings. However because the original randomized controlled trial this study is following up only investigated elective operations due to due to logistical and ethical reasons relating to study recruitment and informed consent, we have purposely maintained the scope of this study to patients undergoing elective index operations only to provide a fair comparison. We have added statements to make it clearer that all patients underwent elective operation, and have included this as a limitation of our study.

Changes to the text:
We have already mentioned in the Methods that the patients is the short term statin placebo group (the participants of the original trial) underwent 'elective colorectal resection or reversal of Hartmann's procedure' (page 4, line 49), and have now added the following statement to the Methods section to make it clearer that the long term statin group also underwent elective index operations: "A third group of participants that also underwent elective colorectal resection or reversal of Hartmann's operation and were assessed for eligibility for the original trial but were excluded due to being on pre-existing statin therapy, were introduced into the present study as a comparison group representing long-term statin use" (Page 5 line 1)

In the limitations paragraph of our 'Discussion' section, we have included the statement: "The scope of the study was limited to patients undergoing elective index operations only recruitment of participants to the original RCT would not have been feasible for patients undergoing emergency or nonelective urgent operations. The findings may not be applicable to patients undergoing acute or emergency operations." (Page 8 line 45)

Comment 2: Another consideration would be duration of surgery (time spent handling bowels in the operating room) and presence of prior abdominal surgeries.

Reply 2: Thank you for this recommendation, the authors agree that the presence of prior abdominal surgeries and operation duration are important confounding factors to consider. We have added the figures for the number of patients that had previous abdominal operations to Table 1, and there was no difference between the groups. Regarding the duration of surgery (which is likely representative time spent handling bowels), this was measured in the original RCT between the short term statin and placebo groups and no difference was found.

Unfortunately, retrospective data for operation duration is not available for the long term statin group, and we have now commented on this in our limitations. Notably, there was no difference in operative approach between all 3 groups.

Changes in the text
New row added (Row 21) to 'Table 1. Patient Characteristics', to show data on 'Previous abdominal operations, n(%)', with 14 (22%) patients in the short term statin group, 15 (24%) in the placebo and 37 (27%) in the long term statin group having a history of prior abdominal operations. The p value was 0.648, indicating no statistically significant difference.

Regarding operation time, this statement was added to the limitation paragraph of the 'Discussion' section: "While the original trial reported no difference in operation time between the short term statin (median 190 minutes, IQR: 137-236) and placebo (median 194 minutes, IQR: 136-264) groups (24), which likely represents similar bowel handling time, no data on operation time was available for the long term statin group retrospectively which may be another potential confounding factor." (Page 8, Line 40)

Comment 3: The circumstances surrounding operative surgery should also further be clarified. As there were baseline differences between some of the three groups, it would be helpful to include whether the trial of nonoperative SBO treatment was standardized across admitted patients. If not, it would be helpful to include variables that might account
for any underlying differences in SBO treatment.

Reply 3: Thank you for noting this as it is certainly something we could have made clearer. Trialling conservative management of small bowel obstruction was standard with nasogastric decompression with or without gastrografin administration (of which we had reported no difference between the 3 groups) depending on the clinical course of the obstruction. Operative management was required if obstruction did not resolve, the decision of which would have been made by the treating team. We have made the following changes to make this clearer.

Changes in the text
Added statement to section 'Methods: Outcomes of Interest, Small bowel obstruction': "Non operative management involved nasogastric decompression with or without gastrografin administration, with the decision to escalate to operative management made by the surgical team depending on failure to resolve with conservative management and the patients' clinical disposition." (Page 5 line 24), and statement to section 'Results, Small Bowel Obstruction': "Non-operative management was standard across all 3 groups with a trial of nasogastric decompression initially, and there was no difference in gastrografin administration during admission for SBO or ASBO between the groups." (Page 7, line 7)