**Reviewer’s report**

**Title:** How Effective is Collagen Resorbable Membrane Placement after Partially Impacted Mandibular Third Molar Surgery on Postoperative Morbidity: A Prospective Randomized Comparative Study

**Version:** 0 **Date:** 11 May 2017

**Reviewer:** Tobias K. Boehm

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Title: How Effective is Collagen Resorbable Membrane Placement after Partially Impacted Mandibular Third Molar Surgery on Postoperative Morbidity: A Prospective Randomized Comparative Study

Summary:

This is a clinical trial on postoperative outcomes comparing two different surgical techniques for removal of third molars.

Hypothesis: The hypothesis is not explicitly stated in manuscript, but it appears that the authors wanted to determine if a collagen membrane reduces postoperative complication after third molar removal.

Experiment: Healthy subjects who needed their 3rd molars removed were assigned to one of three possible surgical protocols resulting in primary closure without inserted collagen membrane, primary closure with inserted collagen membrane or a wound left to heal by secondary intention. Over the next seven days, researchers recorded pain severity and swelling using a visual analog scale, mouth opening range, incidence of postoperative bleeding, wound dehiscence, infection and alveolar osteitis.

Outcomes:

Subjects who were treated using the protocol resulting in healing by secondary intention experienced significantly less pain during the second day after surgery, but otherwise pain experiences were similar for all surgical protocols. The primary closure groups had significantly more swelling and restriction in mouth opening during the first few days. The incidence of postoperative complications was low, and there were no significant differences in incidence of postoperative complications between the groups.

Strengths:
- assessed surgical difficulty level and showed there was no difference between groups.
- assessed surgery time
- thorough assessment of post operative outcomes.
- results support conclusion of paper

Weaknesses:

- Surgeries were carried out by one surgeon and observed differences in outcomes may also have been due to surgeon characteristics (i.e. membrane placement, suturing technique specific to the surgeon). However, study outcomes match outcomes of other studies, so this may not be a critical confounding variable, and correction would require a new, larger study.

Corrections requested:

- Please indicate how patients were assigned to different groups (i.e. block assignment, simple random assignment)

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.

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

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