Author’s response to reviews

Title: A novel surgical technique for punctal stenosis: Placement of three interrupted sutures after rectangular three-snip punctoplasty

Authors:
Seong Jun Park (apolo_kr2000@naver.com)
Ju Hee Noh (bamtiger@naver.com)
Ki Bum Park (119436@schmc.ac.kr)
Sun Young Jang (ysyat01@naver.com)
Jong Won Lee (ophlee@naver.com)

Version: 1 Date: 20 Jan 2018

Author’s response to reviews:

January 21, 2018

Editor-In-Chief and Reviewers

BMC Ophthalmology

MS No. BOPH-D-17-00638

TITLE: A novel surgical technique for punctal stenosis: Placement of three interrupted sutures after rectangular three-snip punctoplasty

Dear Editors and Reviewers:

I sincerely thank you for taking the time to review our manuscript. I have carefully read all your comments and have made appropriate corrections and clarifications. I had full access to
all the original data and take responsibility for the data integrity and accuracy, and the decision to submit the work for publication.

I hope that the revised manuscript will meet the requirements of BMC Ophthalmology.

Yours sincerely,

Sun Young Jang, MD
Department of Ophthalmology, Soonchunhyang University Bucheon Hospital,
170 Jomaru-ro, Wonmi-gu, Bucheon City, Gyeonggi-do, Republic of Korea.
Tel: 82-32-621-6718, Fax: 82-32-621-5018, E-mail: ysyat01@naver.com

Jong Won Lee, MD
Soo Eye Clinics, Seoul, Korea, 202-13, Miadong, Kangbook-gu, Seoul, Korea,
Telephone:82-2-988-1001, Fax:82-2-989-6366, E-mail: ophlee@naver.com

Reviewer reports:

Reviewer 1:

Comment. More specifically, in the methods, I would recommend focusing on how the study was constructed and what was done rather than including demographics such as mean patient age, which would fit better in the results. Please update the abstract as well as consider moving the demographics in lines 90-91 of the manuscript to the results.

Response to comment: Thank you. We have moved the demographics and other mentioned data in the Methods section to the Results section in both the Abstract and the rest of the manuscript.
Page 2, lines 35–36, Abstract: Results: The mean patient age was 64.1 years, and the mean follow-up time was 17.4 months.

Page 5, lines 130–132, Results: Forty-eight eyes of 44 patients were enrolled. The mean patient age was 64.1 years. Ten patients were male and 34 were female. The average follow-up time was 17.4 months.

Reviewer 2:

Comment. The main weakness of the manuscript is that the etiology of the punctal stenosis in the patients is not described. Causes of punctal stenosis are legion, including inflammatory, infectious, medications (topical and systemic), neoplastic, radiation, trauma, etc. Success rates addressing each of these etiologies will differ.

Response to comment: Thank you. We have added the causes of punctal stenosis in the Results section as follows.

Page 5, lines 132–134, Results: The causes of punctal stenosis were idiopathic (35 patients), severe viral keratoconjunctivitis (six patients), ocular pemphigoid (two patients), and systematic chemotherapy (one patient).

Page 5, lines 143–145, Results: Among four eyes determined as symptomatic failure, anatomical recurrence (restenosis of the punctum) was observed in only one eye (a patient with idiopathic punctal stenosis).

Reviewer 3:

Comment 1. What are the pre op grading of the stenosed puncta? Any control group?
Response to comment: This study was a retrospective chart review study, so a limitation of the study was the lack of preoperative grading of stenosed puncta and the absence of a control group, which were your concerns. The limitations of this study were mentioned in the Discussion section, and we have added ‘a retrospective, non-comparative study’ to the Methods section for further clarification.

Page 2, line 31, Abstract: A retrospective, non-comparative interventional case series.

Page 4, lines 89–90, Methods: This was a retrospective, non-comparative interventional study.

Page 7, lines 195–198, Discussion: Physiological preservation of the lacrimal system should be further reviewed in comparison with that provided by conventional rectangular or triangular TSP as control groups. A limitation of this study was a lack of preoperative grading of stenosed puncta.

Comment 2. Better to review other variations of punctoplasty such as punch punctoplasty https://www.ncbi.nlm.nih.gov/pubmed/?term=punch+punctoplasty.

Response to comment: Thank you. We have added a review of punch punctoplasty to the manuscript.

Page 3, lines 75–77, Introduction: In addition to advances in the surgical procedure, adjunct therapies have also been developed. These include the use of punctal plugs [5], stenting [6], prescription of mitomycin C [7], and punch punctoplasty with a Kelly punch [8].

Page 7, lines 185–188, Discussion: Recently, long-term outcomes of punch punctoplasty using a Kelly punch have been reported with promising results [8]. In this report, the anatomical success was 94% and the functional success rate 92%.
Added references


Comment 3. Why the authors choose 10'o nylon rather than 9'o vicryl? In the photos provided, the knots are not buried. Are there any discomfort or corneal irritation due to this?

Response to comment: We have used 10'o nylon because the suture material results in less inflammation and tissue reactions. No discomfort or corneal irritation was observed because of use of the 10'o nylon.

Comment 4. As the final outcome is using 'improved' or ‘unchanged’, I will not call this 'patient satisfaction survey' (page 2).

Response to comment: We agree with your suggestion. We have removed the term ‘patient satisfaction survey’ entirely from the manuscript. Instead of ‘patient satisfaction surgery’, we have revised the methods using appropriate terms as follows.

Page 2, line 33-34, Abstract: The subjective symptoms of patients were surveyed.

Page 2, line 37, Abstract: Regarding subjective symptoms, 91.7% of the eyes (44/48) were reported as improved.

Page 4, lines 96–97, Methods: Subjective symptoms of patients were surveyed as improved or not improved.

Page 5, lines 137–138, Results: The patient subjective symptom survey showed that 44 eyes (91.7%) were improved, and four eyes (8.3%) remained unchanged.
Comment 5. What instrument was used to make the cut? I suppose if use Vannas scissors, the lifespan of these will be shorten.

Response to comment: Thank you for correcting this error. We used small Westcott spring scissors. Corresponding phrases in the surgical technique section of the manuscript were corrected.

Page 4, lines 108–112, Methods: A dilator or small Westcott spring scissors was used to enlarge the stenotic lacrimal punctum. A single blade of a small Westcott spring scissors was placed within the ampulla of the lacrimal canaliculus, with the remaining blade placed on the conjunctival surface of the posterior aspect of the eyelid.

Comment 6. Can the authors provide some references of using Tear meniscus height (TMH) as a pre and post op assessment tool?

Response to comment: Thank you. We have provided references mentioning the rationale of using TMH as a pre- and postoperative assessment tool.

Page 4, lines 94–96, Methods: Tear meniscus height (TMH) was measured using a slit lamp and changes in tear film volume after surgery were noted [11, 12].

Added references:


Comment 7. The authors mentioned that the mean TMH fell from 1.37 mm to 0.81 mm. The paired t-test revealed a significant difference between the pre- and post-operative TMH (p < 0.001). Please include the range of pre and post of TMH.

Response to comment: Thank you. We have added the range of the pre- and postoperative TMH.

Page 5, lines 138–140, Results: The mean TMH decreased from 1.37 mm (0.5–3 mm) to 0.81 mm (0.5–2 mm). The paired t-test revealed a significant difference between the pre- and postoperative TMH (p < 0.001).

Comment 8. The authors need to provide some explanation why their technique works well (such as less raw surface, healing by primary intention rather than granulation tissue).

Response to comment: We have added our rationale for the promising results of the technique to the Discussion section of the manuscript.

Page 7, lines 189–192, Discussion: Our rationale to explain the promising results of the three sutures after rectangular TSP was that the interrupted sutures helped to decrease the raw surface of the dilated punctum and making restenosis of the dilated punctum less likely.

Comment 9. What post op eye medications were used?

Response to comment: Levofloxacin and fluorometholone eye drops were used q.i.d. for 1 week.

Page 5, lines 119–120, Methods: Levofloxacin and fluorometholone eye drops were used q.i.d. for 1 week.
Comment 10. Was surgery performed under operative microscope or loupe? Please clarify.

Response to comment: The surgery was performed under an operating microscope. A corresponding phrase was added to the surgical technique section of the manuscript.

Page 4, lines 105–106, Methods: Surgery was performed using an operating microscope under local anaesthesia (Figure 1).

Comment 11. The authors said this technique is more invasive, how long does it take to do for one case?

Response to comment: A total of 5–10 minutes was usually required for one case. A corresponding sentence was added to the Results section of the manuscript.

Page 5, lines 136–137, Results: The surgery required 5–10 minutes for one case.