Author’s response to reviews

Title: FUNCTIONAL OUTCOMES AFTER COMBINED IRIS AND INTRAOCULAR LENS IMPLANTATION IN VARIOUS IRIS AND LENS DEFECTS

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Author’s response to reviews:

Dear Editor and Reviewers,

thank you very much for the review of our paper and your suggestions which lead to a significant improvement of the manuscript. Please find your comments and our answers below:

Reviewer: 1

Comments to the Author:

Reviewer 1: The paper reported the functional outcomes of iris prosthesis and intraocular lens implantation in aniridia patients. The author did a good job to provide an effective option for aniridic and aphakic eyes; however, the manuscript needed to be revised.

1. It is better not to use the abbreviation of the intraocular lens in the title. Please consider expressing the title as "Functional outcomes after combined iris and intraocular lens implantation in various iris and lens defects".

Answer: We changed the title according to your suggestion.
2. In the result part, the authors described "Median ECD was also significantly (p=0.007) decreased from 2646.0 mm² to 2497.5 mm²". In the discussion part, low median ECD amounting to less than 2000 cells/mm² was found in 11 eyes before the surgical invasion, and one eye developed secondary corneal decompensation followed by the explantation of the ArtificialIris. Please explain the significant decrease of endothelial cell density and the security of the combined iris and intraocular lens repair. Can the authors recommend some indications?

Answer: This topic is now addressed in the discussion.

3. In the result part, the authors only described that the median glare score was significantly reduced after surgery. It seems better to add the scores of cosmetic disturbance and other evaluation of patient satisfaction before and after iris reconstruction?

Answer: We fully agree that this is an interesting topic. However, the cosmetic disturbance was not within the scope of this manuscript. Another one of our papers, where we specifically looked at this topic, has just been accepted at PLOS One for publication. Therefore, we added a short section about the topic “cosmetic disturbance” to the discussion and summarize the findings of that paper.

4. In figure 2, why did the author analyze the percentage of defect types and OTS scores of ocular trauma? Did the defect types and severity of ocular injuries affect the functional recovery and subjective patients' impairment for aniridia patients?

Answer: We decided to include the OTS score to underline the fact how severely pre-damaged these eyes are. In our opinion, this is important to put the results into the right perspective. We also added this information to the figure legend. Due to the large heterogeneity (trauma eyes vs. other reasons for iris defects, large variety within the trauma group as well as different comorbidities) sample size in each subgroup is rather small despite the large overall number of patients. We decided not to perform such a subgroup analysis, because the sample size in each group would be too small for such an evaluation.

5. On page 11 lines 260 to 262, the authors described "However, we postoperatively determined a decrease of subjective glare that gave us some details concerning a clinically significant interrelation between contrast sensitivity and sensitivity to glare". The results section does not provide a correlation between contrast sensitivity and glare. Please supplement the results.

Answer: Thank you very much for informing us that this claim is not supported by the presented data. We therefore have removed the claim.

6. Pay attention to correct some grammatical errors in the manuscript.
Answer: We have corrected the remaining errors.

Reviewer 2:

This is an interesting study which assessed the functional outcomes after combined iris and intraocular lens repair in aniridia patients. I consider that this study has enough quality and novelty to be published in BMC.

Answer: Thank you for the kind words.

We hope that you can accept the revised version of paper. Please do not hesitate to contact us in case of other suggestions.

Kind regards

Christian Mayer