Author’s response to reviews

Title: The necessity and optimal time for performing pars plana vitrectomy in acute retinal necrosis patients

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Version: 1 Date: 14 Dec 2017

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Dear Editors and Reviewers:

Thank you for your letter and for the reviewers’ comments concerning our manuscript entitled “The necessity and optimal time for performing pars plana vitrectomy in acute retinal necrosis patients” (ID: BOPH-D-17-00534). Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in color in the paper. The main corrections in the paper and the responds to the reviewer’s comments are as flowing:

Ali Osman Saatci (Reviewer 1):

(1) The group 1 should be named as Medically treated group.

Answer: Thank you very much for your comments. We have made corrections according to the reviewer’s comments. The ‘medically treated group’ is in red in the revised version of this manuscript.
(2) It is written that intravitreal ganciclovir was injected at the beginning and then pro re nata. However the number of injections should be given for the whole group 1 patients.

Answer: Thank you very much for your comments. All the patients in group 1 received 1-3 injections, with an average of 1.5 injections. We add this information in line 136, page 7, marked in green.

(3) The timing of steroids was not mentioned.

Answer: Thank you for your comments. In our practice, systemic steroids were started 24-48 hours later after the initiation of antiviral treatment. We add this in line 110, page 4, marked in yellow.

(4) How about acetyl salisilic acid? Did the authors give it or not?

Answer: Thank you for your question. In our practice, we didn’t prescribe acetyl salisilic acid.

(5) Did they perform encircling band? This is not clear.

Answer: Thank you for your question. Not all the patients had encircling band. As mentioned in line 146-147, page 7, we performed encircling band in 3 patients in early PPV group who had recurrent retinal detachment.

(6) There is no need to give the diagnostic criteria as a separate figure as the reference number is already given. Color figures do not add to the manuscript as they are ordinary ARN pictures. However maybe a complex patient who had been surgically treated can be incorporated.

Answer: Thank you for your comments. We deleted the figure for the diagnostic criteria. Another figure showing the fundus of an ARN patient in group 1 before and after PPV is added in this revised manuscript.
(7) Though the total number of patients are satisfactory it cannot be said that there was no difference between treatment patterns as the conclusion. The saying should be softened.

Answer: Thank you for your suggestion. We have made corrections according to the reviewer’s comments: ‘Our study also suggested that early PPV may not provide better outcomes compared with the routine PPV or the nonsurgical groups’ in line 221, page 11, marked in red.

Sibylle Winterhalter, MD (Reviewer 2):

(1) Introduction, page 4, line 78: please include ‘to treat vitritis, optic nerve head neuritis and vasculitis’ after systemic steroids to clarify the therapeutic target of additionally given steroids.

Answer: Thank you for your suggestion. We have made corrections according to the reviewer’s comments, marked in red.

(2) Introduction, page 4, line 80: please include: retinal detachment is ‘one of the main causes’ of this poor result, because optic neuritis, macular edema and vasculitis are further reasons for poor final visual acuity.

Answer: Thank you for your suggestion. We have made corrections according to the reviewer’s comments, marked in red.

(3) Material and methods, page 5, line 92: Did you perform anterior chamber or vitreous tap for viral proof? This would be really important to know, because CMV associated ARN should be treated primarily with ganciclovir instead of acyclovir. Anterior chamber tap is easy to perform with a high diagnostic value. Please clarify your diagnostic approaches.

Answer: Thank you for your comments. All the patients in our study got a TORCH (Toxoplasmosis, Rubella, Cytomegalovirus, and HSV) test for vitreous and serum. Then the quotients of the relative amount of antibodies against herpes antigens in the vitreous humor and serum (Goldmann–Witmer coefficient) was calculated: (antibody titer against viral antigens in the vitreous/IgG amount in the vitreous humor)/(antibody titer against viral antigens in the
serum/ IgG amount in the serum). If the Goldmann-Witmer coefficient was larger than 6 for cytomegalovirus (CMV), the patient was diagnosed as CMV infection and exclude from the study[1]. We add these information in line 93-99, page 5, marked in yellow.

Reference:


(4) Material and methods, page 5, line 101: 2 months of oral antiviral therapy following intravenous therapy is much too short. Most bilateralisations of ARN occur during the first 12-14 weeks, so it would be better to treat the patients with a longer oral antiviral medication phase.

Answer: Thank you for your comments. We are so sorry for our mistake. This was a clerical error. We usually gave 6 months of oral antiviral therapy following intravenous therapy. This is corrected in line 109, page 5, marked in red.

(5) Table 1, please write BCVA in logMAR as well not in decimal and edit the table on one page

Answer: Thank you for your suggestion. We have made corrections according to the reviewer’s comments, marked in red.

(6) Discussion, page 10, line 194: please insert after … contralateral eye ‘and does not treat a possible concomitant herpetic encephalitis or meningitis.’

Answer: Thank you for your suggestion. We have made corrections according to the reviewer’s comments, marked in red.
Answer: Thank you for your comments. According to British Centre for Evidence-Based Medicine, a level II rating was assigned to well-designed case control and cohort studies, and poor-quality randomized studies, and a level III rating was assigned to case series, case reports, and poor-quality cohort and case-control studies[1]. We add these information in line 214-218, page11, marked in yellow.

Reference


Answer: Thank you for your comments. We add the conclusion in the last paragraph: ‘In conclusion, this study suggested that early PPV may not provide better outcomes compared with the routine PPV or the medically treated groups. Both PVR development rate and recurrent RD rate were high in ARN patients with different treatment protocols. Clinically, despite our efforts, their prognosis was poor. Further studies are needed to investigate the therapeutic method to decrease the development of PVR’, marked in yellow.

Once again, thank you very much for your comments and suggestions.

Yours sincerely,

Xuedong Zhang