Author's response to reviews

Title: Amniotic membrane transplantation ineffective as additional therapy in patients with aggressive Mooren's ulcer

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Author's response to reviews: see over
Reviewer 1:
1) The authors follow the common suggestion of an autoimmunological origin for Mooren’s ulcer so that remain unclear why the therapeutic protocol include autologous serum eye drops. They should clarify the suspicion that the antibodies in the serum have had a negative influence of the ulceration healing.

The are several lines of evidence for a positive effect of serum in Mooren’s ulcer (Lavaju P, Sharma M, Sharma A, Chettri S. Use of amniotic membrane and autologous serum eye drops in Mooren's ulcer. Nepal J Ophthalmol. 2013 Jan;5(9):120-3.; Mavrakanas NA, Kiel R, Dosso AA. Autologous serum application in the treatment of Mooren's ulcer. Klin Monbl Augenheilk. 2007 Apr;224(4):300-2.). The theoretical basis for using autologues serum eye drops is the supplementation of serum components which are responsible for wound healing and for inflammatory and immune response. Factors like the epidermal growth factor support proliferation and migration of epithelial cells. There are several other components of serum e.g. fibronectin, vitamin A, antiproteases, neuronal factors, IL-10 and TGF-β which either have positive effects on wound healing or suppress inflammatory reactions. The positive effect of these factors outweighs the potential negative influence of serum antibodies.

2) The title may suggest a benefit of the amniotic membrane in Mooren’s ulcer treatment which is not supported by the findings. It should be adapted.

The title is adapted now.

3) The manuscript some revision because of spelling mistakes (e.g. in the introduction: "...cyclophasphamide,...", in results: "...three times daily..."). The authors are using apostrophes inconsistent and partly incorrect throughout entire manuscript. The typographical correct form, a point with a downwards tail clockwise shout be used generally for “Mooren’s ulcer” and “Graves' disease”. An usage of the diacritical sign only make sense in exceptional cases (e.g. grotesque or other sans serif typefaces).

The spelling mistakes and the use of apostrophes are corrected.

Reviewer 2:
1. Discussion:
During the introduction on the fourth page you talked about Ngan et al’s retrospective study of 18 eyes who stabilized after being treated with AMT and then about Chen et al and Zhou et al’s contrasting results, (references 13,14,15). In your discussion you did a fantastic job of talking about the different categories of Mooren’s and how you found differences in the more aggressive forms. Similarly, I think it would be nice to hear a little more about how your study differed from those previous case reports of AMT and why you think your cases did not benefit from AMT therapy.

The studies of Ngan et al, Chen et al. and Zhou et al. are discussed in detail now. The differences between their studies und our study is discussed.

2. Conclusion:
Your overall question for the paper was to shed more light on the optimal
treatment of severe progressive Mooren’s. Perhaps a statement in the conclusion that is based on your case series stating that there is no optimal treatment for Mooren’s, would be appropriate (indirectly you refer to this but do not say it in text).

A statement in the conclusion that there is no optimal treatment for Mooren’s ulcer is included.

3. Title:
Good title, but I’m not sure if it truly conveys the outcome of the case series. When I first read the title I assumed it was further evidence supporting the case that AMT would be effective for Mooren’s patients and honestly would have probably stopped there. Therefore, I would consider adding something to the title to convey the fact that AMT is ineffective. Such as “Amniotic membrane transplantation ineffective as additional therapy in patients with aggressive Mooren’s ulcer”.

The title is changed according to your suggestion.

Reviewer 3:
I have attached the report with my changes.

Your changes are included in the manuscript now.

This article has the potential to hold much merit; however, I don’t feel the authors included enough information on why AMT is a viable therapeutic option.

More information on the background of AMT therapy is included in the manuscript now.