Author's response to reviews

Title: Choroidal neovascularization in angioid streaks following microincision vitrectomy surgery: a case report

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Author's response to reviews: see over
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Prof. Andrew Dick
Section Editor of *BMC Ophthalmology*

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Dear Prof. Andrew Dick,

We would like to thank you and the reviewers for the constructive comments regarding our manuscript entitled "**Choroidal neovascularization after small-gauge vitrectomy in angioid streaks: a case report**". We have addressed each of the reviewers’ comments on a point-by-point basis. All changes were highlighted using red color text in the revised manuscript.

Sincerely,

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Reply to the reviewer (Dr. Winfried Amoaku)

1. The authors need to explain why ranibizumab monotherapy was not explored prior to combination with PDT. Poor response to ranibizumab cannot be assumed from responses or lack of it to bevacizumab. There are case series that describe such response of AS associated CNV to ranibizumab (Shah et al, 2012).

We appreciate the insightful comment. We agree the comment that poor response to ranibizumab cannot be assumed from responses or lack of it to bevacizumab. In fact, there are several reports that intravitreal ranibizumab (IVR) monotherapy was effective for CNV associated with angioid streaks (AS). We added the reference (Shah et al, Eye 2012) in the Discussion of the revised manuscript. Recently, Christoforidis et al revealed that clearance rates for intravitreally placed bevacizumab or ranibizumab in vitrectomized or lensectomized rabbit model eyes are faster than those in control eyes. In fact, because our patient had a vitrectomized-pseudophakic condition, we therefore considered that IVR monotherapy might not have been effective in the patient. Therefore, we performed the combined therapy of full-dose PDT and IVR instead of IVR monotherapy. We added the above-mentioned contents to the Discussion in the revised manuscript.

2. Under Discussion, the authors indicated that Browning et al ‘demonstrated that PDT seemed to delay, but not prevent the development of CNV associated with AS’. This is incorrect. Browning et al did report that PDT delayed, but did not permanently prevent visual loss associated with the CNV in AS.

We agree the comment. We have revised to “Browning et al. showed that PDT delayed, but did not permanently prevent visual loss associated with the CNV in AS” in the revised manuscript.

All corrections have been made with red color fonts in the revised manuscript.

We wish to thank you for the helpful comments. We believe that our revised manuscript is now much improved.
Reply to the reviewer (Dr. Yang Sun)

1. Occurrence 7 weeks post incisional surgery is less strong an association than immediately post-op. Did any minor trauma occur?

No. In fact, he had no history of any ocular trauma after the surgery. We have added “he had no history of any ocular trauma after the surgery” in the revised manuscript.

2. The conclusion to use VEGF and PDT combination in AS maybe an overstatement.

We agree the comment. We have changed to “the combination of PDT and anti-VEGF therapies may be considered for use as the initial treatment of CNV”.

3. Any workup for AS associated diseases? PXE? Pagets dz?

We appreciate the insightful comment. In fact, the patient had characteristic skin lesions of pseudoxanthoma elasticum (PXE). During revision process, dermatologists and we performed a skin biopsy after informed consent. The histological section of the biopsy showed short and broken elastic fibers with dark staining of calcium deposits by Von Kossa staining in the reticular dermis, convincing a diagnosis of PXE. Therefore, we added a new figure (Figure 6) of the histological section in the revised manuscript. We have added the following sentences “Examination of the skin on the neck showed suggestive of PXE. A skin biopsy was performed from the lesion on the neck. The histological section of the biopsy revealed short and broken elastic fibers with dark staining of calcium deposits by Von Kossa staining in the reticular dermis (Figure 6), convincing a diagnosis of PXE” in the revised manuscript.
4. page 4. Should read "from the ON to the peripheral retina."

We have changed to “optic nerve to the peripheral retina”.

5. A few comments on the pathogenesis and association with PXE should be mentioned.

We added the following sentence “Approximately 70% of AS patients have pseudoxanthoma elasticum (PXE) characterized by changes in the elastic tissue of the skin” in the revised manuscript.

6. Page 6, "AS are wider and longer" is unclear

We have changed to " wider and longer AS are associated with higher risk of CNV”

7. page 7, Trauma is already plural.

We have changed to “indirect ocular trauma”.

8. "Browning et al. demonstrate" Demonstrate is too strong for the evidence provided. "showed" maybe better.

We have changed to “Browning et al. showed that PDT delayed, but did not permanently prevent visual loss associated with the CNV in AS”.
9. page 8, Development of CVN "can" occur in...

We have changed to “Development of CNV can occur in”.

All corrections have been made with red color fonts in the revised manuscript.

We wish to thank you for the helpful comments. We believe that our revised manuscript is now much improved.