Reviewer’s report

**Title:** Peripheral Retinal Neovascularization Secondary to Highly Myopic Superficial Retinoschisis: A Case Report

**Version:** 0  **Date:** 18 Aug 2019

**Reviewer:** Dario Pasquale Mucciolo

**Reviewer's report:**

Revision

Luo et al. described a 38-year-old highly myopic Chinese female affected by peripheral retinoschisis with vascular abnormalities who underwent to a laser treatment.

Vascular abnormalities and retinal neovascularization are unusual findings in peripheral retinoschisis. Howev, previous authors have already described these peculiar abnormalities. Vitreous hemorrhage is an unusual complication of senile retinoschisis (Campo 1983; Gelisken 2002). Rupture of poorly supported blood vessels traversing the inner layer of the cyst has been thought to account for those rare instances of vitreous and intra-retinal hemorrhage described in senile retinoschisis (Campo 1983; Gelisken 2002; Byer 1976). A similar mechanism may account for episodes of vitreous hemorrhage occurring in juvenile X- chromosome-linked retinoschisis (Greven 1990; Murro 2017) but other studies suggested that retinal surface neovascularization is a possible finding (Campo 1983; Ewing 1972). Few cases are described of vascular abnormalities (retinal teleangectasia-like) in presence of retinoschisis (Gelisken 2002) in the absence of other diseases. Furthermore, retinoschisis and peripheral vascular abnormalities including peripheral neovascularization, telangiectasia, and retinal capillary angiomas are also complications of long-standing pars planitis.

1) Consider the aforementioned citations for your introduction/discussion. In particular, Campo et al. (Campo 1983) described three patients with retinoschisis whose symptoms resulted from mild vitreous hemorrhage. In all three patients the source of the hemorrhage was neovascularization of the dome of the cyst. Fluorescein angiography was helpful in confirming these findings. As the clinical cases reported by Luo et al. Pars planitis is a differential diagnosis because this disorder is sometimes complicated by vitreous hemorrhage and traction-induced retinoschisis. Pars planitis usually affects children and adults less than 50 years old. Please discuss in your paper.
2) In the discussion, the author suggested that is more prominent in superficial retinoschisis (line 86-87). However, they affirmed that the location of schisis doesn't seem like a significant contributory factor, since retinal neovascularization secondary to superficial retinoschisis was reported both at macula and nasal quadrant. The concept that the author wants to give is not clear.

3) The schisis classification at the beginning (of the discussion) seems pointless, it does not support a thesis discussed by the authors.

4) Please add to the figure an early and later fluorescein angiograms to better show the neovascular abnormalities.

5) Why should myopia be an important factor?

The strength of this clinical case is the good imaging


Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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