Reviewer's report

Title: Clinical and Optic Coherence Tomography Findings of Focal Choroidal Excavation in Chinese Patients

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Reviewer: Christopher Seungkyu Lee

Reviewer's report:

I enjoyed reading this paper and congratulate the authors for their work. This study evaluates 37 eyes of 31 Chinese patients with focal choroidal excavation (FCE) detected on Cirrus OCT.

Major Compulsory Revision

1. Result, 4th paragraph: “8 with local retinal detachment (likely 7 CSCR and 1 nonconforming)…” There seems to be some confusion about how many CSC patients were included in this series. Authors stated in the abstract and other places that there were 4 CSC cases. I assume that out of these 7 CSC-looking OCT cases, only 4 cases were confirmed by fluorescein angiography. Authors may want to elaborate on these CSC-like nonconforming type FCE, perhaps with figures, since “special attention was given to the characteristics of excavations with CSCR” as stated in the introduction. What was the difficulty in differentiating active CSC from uncomplicated nonconforming FCE on OCT? Could choroidal thickness (if can be measured) help differentiating these eyes? Choroidal thickness in FCE was initially thought to be thickened (Margolis et al. Archives of ophthalmol 2011), but more recent reports found that it is not significantly thickened unless complicated by CSC. Authors described four differences between CSC-associated RD and nonconforming FCE-associated RD in the discussion (i.e. RD extent, location of ELM/IS/OS line, RPE changes, and association with type 1 FCE). Authors may want to use these points to address this issue. Please refer to some of the recent publications on CSC in FCE for further discussion. (Suzuki et al. Characteristics of Central Serous Chorioretinopathy Complicated by Focal Choroidal Excavation, Retina 2013; Ellabban et al. Focal Choroidal Excavation in Eyes With Central Serous Chorioretinopathy, AJO 2013. Lee CS et al. Clinical and Spectral-Domain Optical Coherence Tomography Findings in Patients with Focal Choroidal Excavation. ophthalmology, 2014)

2. Another issue with CSC. Authors may want to describe whether their CSC cases were in active phase or not. I have seen a nonconforming CSC/FCE with serous RD becoming a conforming type FCE after resolution of serous RD. Conversely, some cases remained nonconforming even after complete resolution of serous RD. The latter would represent an originally nonconforming FCE that was complicated by serous RD with CSC. The former would represent an originally conforming FCE that assumed the appearance of nonconforming FCE with the development of CSC. Active CSC and nonconforming FCE may not be
mutually exclusive. The “true” nature of FCE could be masked by active CSC or other RD-causing pathologies.

3. An idea for typing FCE into 2 types based on steepness of excavation is interesting. Authors may want to describe the criteria for this typing in detail in the method section. Did you arbitrarily determine the type by gross evaluation of lesion contour on OCT? Was the ratio between lesion diameter and depth considered, perhaps? Could an angle (acute vs. obtuse, etc) formed between lateral margin of FCE and transverse line be used for some objectivity maybe? What was the implication of this typing? Authors stated that nonconforming FCE was more associated with “steep” FCE. Further analysis on this issue (perhaps with statistics and a table) would help highlight this interesting point.

Minor Essential Revisions

1. Abstract, Results: “Abnormal changes in these eyes were more prominent…” Please clarify what “these eyes” refer to (type 1? Or type 2?).


3. Result: Table of demography and clinical features would help.

4. Result, 4th paragraph. Please clarify “trans-illumination of the choroid at the choroidal excavation area (figure 1)”. Does it refer to fundus photograph? OCT? It would be better if this can be shown in figure 1 with legend.

5. Discussion, 1st paragraph: “Our series, which is the largest ever reported,…” This sentence needs to be readdressed, since there is a recent article with 41 FCE eyes of 38 patients. (Lee CS et al. Clinical and Spectral-Domain Optical Coherence Tomography Findings in Patients with Focal Choroidal Excavation. ophthalmology, 2014)

Discretionary Revisions

1. Discussion, 1st paragraph: please put the citation number for “Ron Margolis et al”

2. Putting % in parenthesis by some important figures (eg. % associated with CSC) would help readers to appreciate the finding.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests