Peer Review File

Evaluation of the changes in choroidal thickness in patients with central serous chorioretinopathy as measured by optical coherence tomography

Reviewer 1

Dr Sadek et al present their work in this paper titled “Evaluation of the changes in choroidal thickness in patients with central serous chorioretinopathy as measured by optical coherence tomography.” Some comments are followed:

1. In introduction, it’s better to introduce the clinical significance of evaluating choroidal thickness changes in the patients with CSC, whether similar studies have been done by others previously, and tell us the purpose of this study.

2. Method, it’s better to explain the reason why they exclude those “patients with bilateral CSCR, other cause of CSCR as CNV, pigment epitheliopathy and chronic CSCR, also patients receiving any medical treatment that may affect the course of the disease as corticosteroids as well as Patients with refraction more than -2.00 dioptre”

3. Method, if the author selected those patients with only one eye affected, for the purpose of comparison of the choroidal thickness changes, the other eye can be regarded as a normal control, why the authors choose the normal individuals as normal controls ?

4. Results, page 4, line 11, 15 males and 6 females, however the numbers of the patients are 20!

5. Results, why the author repeat to measure the choroidal thickness for the normal individuals?

6. Results, page 7, the table 1 has the same title and contents with the table 3 at page 15

Response:

1-1: Introduction, it is better to introduce the clinical significance ....and tell us the purpose of this study.

Response: the sentences were added as suggested (page 2, lines 26, 27) and (page 3, lines 9-15)

1-2: Method, it is better to explain the reason why they exclude those patients with bilateral CSCR...

Response: the reason was explained as suggested on page 4, lines 4-7 with a new reference was added number 12 (EL Shazly et al., 2017)

1-3: Method, why the other eye was not regarded as a normal control?

Response: because we aimed to assess the presence of pachychoroid in this fellow eye (a bilateral phenomenon with a systemic basis) so it may be vulnerable to develop acute CSCR in the future

1-4: Results, page 4, line 11, 15 males and 6 females, however, the numbers of the patients are 20

Response: the numbers were revised and corrected "15 males and 5 females"

1-5: Results, why the author repeat to measure the choroidal thickness for normal individuals?

Response: as we thought, for all 3 groups to be assessed at the same time intervals with the same statistical analysis and comparison

1-6: Results, page 7, table 1 has the same title and contents with the table 3 at page 15

Response: this was revised and corrected. It is only one table; table 1 on page 11 and mentioned on page 10, line 5

Reviewer 2:
In this manuscript, the authors investigated the changes in choroidal thickness in patients with central serous chorioretinopathy as measured by optical coherence tomography.

I think that there are some questions should be corrected in paper:

1. Why “In fellow eyes (group 2) at baseline, the mean subfoveal choroidal thickness was 302.10 (±8.9) μm after the 3-month follow-up period the mean thickness was 299.55 microns (±8.7); a decrease that was statistically significant (p < 0.001)”? This point should be discussed in discussion.

Response:
2-1: Why “In fellow eyes (group 2) at baseline, the mean subfoveal choroidal thickness was 302.10 (±8.9) μm after the 3-month follow-up period the mean thickness was 299.55 microns (±8.7); a decrease that was statistically significant (p < 0.001)”? This point should be discussed in discussion.
Response: It was discussed as suggested, page 13, lines 3-13 with a newly added reference n 21

2. The table 1 in manuscript should be modified to “three lines table”.

Response: It was modified as suggested, page 11

Reviewer: 3

At a time when we are looking to deepen OCT-A, studying the thickness of the choroid at CRCS does not seem to arouse curiosity or add scientific knowledge to similar previous studies.

I have great doubt about the relevance of this paper;
The article has some flaws in sentence construction;
Since quantification was done manually, the variability of measurements should have been evaluated (precision vs. accuracy);
If the authors used more than two independent samples, I do not understand why they did not use Anova;
Another weakness of analysis was the "paired" statistical relationship of the Baseline Vs after3m sample was not made.

Response:
3-1: At a time when we are looking to deepen OCT-A, studying the thickness of the choroid at CRCS does not seem to arouse curiosity or add scientific knowledge to similar previous studies.
Response: we agreed with the reviewer but we thought that the OCTA is a useful tool to assess choriocapillaris flow void and ischemia; differentiating acute CSC from others as acute VKH (Aggarwal et al., J ophthalmic Inflamm Infection, 2017) but it will not add more in the assessment of CT than the OCT. This was supported by Feucht et al, 2016 "OCTA findings in acute CSCR” in which they described the OCTA findings in patients with acute CSCR compared to conventional imaging methods in 11 eyes. They found that, in 4 out of 11 eyes, it was possible to detect detached retina adjacent to the leakage point in OCTA images compared to 11 of 11 eyes using SD-OCT. They concluded that OCTA images of superficial and deep retinal plexus, outer retina and choriocapillaris didn't reveal altered flow patterns directly associated with the leakage point in acute CSC.

3-2: The article has some flaws in sentence construction;
Response: we tried to correct some sentences construction as highlighted in red color
3-3: Since quantification was done manually, the variability of measurements should have been evaluated (precision vs. accuracy);
Response: Unfortunately as there is no automatic measurement for CT, only one author (to increase the accuracy and eliminate the variability as possible) measured CT manually as described in methods section, page 4, lines 19-21.
3-4: If the authors used more than two independent samples, I do not understand why they did not use Anova
Response: we revised that point with the Statistician as the reviewer suggested and we used the Anova test. The statistical methods in pages 4,5 were corrected. changes in the results were done as highlighted in red color on page 10, lines 1-8 and table 1 page 11
3-5: Another weakness of analysis was the "paired" statistical relationship of the Baseline Vs after3m sample was not made.
Response: these relationships were explained in the result section at different locations at baseline versus after 3m, for group 1 (page 5, lines 18-27 presented in figure 2). group 2 (page 7, lines 1-9, figure 4), group 3 (page 8, lines 10-20, figure 6)