Reviewer's report

Title: An Easy Method to Differentiate Retinal Arteries from Veins by Spectral Domain Optical Coherence Tomography: Retrospective, Observational Case Series

Version: 2
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Reviewer: Gerald Liew

Reviewer's report:

This is a small retrospective study of 26 eyes (18 patients) to evaluate if certain OCT features can be used to distinguish between arteries and veins. This information is useful particularly for automated detection of vessel types.

Minor essential revisions
I am abit confused by the group of unclassified vessels. If there is no clear lower border hyperreflective band, wouldn't the vessel be classified as a vein, rather than unclassified?
A fair number of vessels could not be classified on OCT. Is this related to any underlying factors eg. older age? hypertension?
Could a worked example of how the sensitivities and specificities arrived at in table 3 be reported? this would be quite useful as it is not very clear from table 2.
In the discussion it is not always clear if the sens, specs, PPV etc reported are for the unclassified vessels included or excluded groups. Perhaps the unclassified included values may be more accurate, since these would presumably be used in clinical practice?
It would be useful to know how this method compares to other methods of identifying aa and vv. Ref 12 is discussed, but it would be useful to know how the method compares to other refs
e.g. 8-15 as well?
In Discussion, perhaps some further discussion of the ultrastructural features that may undelie this lower border hyperreflectivity would be useful.

Minor essential reisions

figure 2. Are 5, 15 arteries or veins?
In the abstract and table 3 sens and spec of arteries and veins is exactly the same. could
the authors confirm this is not a typo?
page 5, line 3 - alterations rather than alternations.
page 5, line 10 - gold standard rather than golden stand
page 7, what does ART mean?
why only 26 eyes? What happened to the other 10 eyes? (should be 36 eyes from 18 pats)
how were vessel diameters measured? from the upper to lower hyperreflective band? this could
be described in more detail.

Level of interest: An article whose findings are important to those with closely related research interests

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