Reviewer's report

Title: Diagnostic imaging equivalence testing comparing the Ocelot and the Dragonfly Optical Coherence Tomography Systems in an In-Vitro Superficial Femoral Artery Model

Version: 4  Date: 21 April 2015

Reviewer: Xiangyu Chen

Reviewer's report:

In this paper, the authors performed a study to corroborate diagnostic imaging equivalence between the Ocelot (Avinger Inc., Redwood City, CA) and the Dragonfly (St. Jude Medical, Minneapolis, MN) OCT systems with regards to the intravascular features that are most important in clinical management of patients with atherosclerotic vascular disease.

To compare the diagnostic information obtained by Ocelot and Dragonfly OCT systems, the authors utilized ex-vivo preparations of arterial segments. Ocelot and Dragonfly catheters were inserted into identical cadaveric femoral peripheral arteries for image acquisition and interpretation.

However, the experimental study was not well designed. The authors may should provide extensive comparison between Ocelot and the Dragonfly. More diagnosis results of atherosclerotic vascular disease may could be reported in the paper to validate the diagnostic imaging equivalence testing.

Some Figures were not clear and not introduced in detail such as Figure 7 and 8.

More detail introduction to Ocelot and the Dragonfly system are required in Section Background and Method.

Level of interest: An article of limited interest

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