Reviewer's report

Title: Factors associated with postprandial lipemia and apo A-V levels in individuals with familial combined hyperlipidemia

Version: 2 Date: 30 September 2014

Reviewer: manuel castro cabezas

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The paper by Almeda-Valdes and colleagues describes postprandial lipemia and its determinants in a considerable number of patients with FCH. Novel data on apoAV in this group are also provided demonstrating associations which were not unexpected, considering the presumed physiological role of this apoprotein. The authors conclude that fasting triglycerides (and waist circumference) are the main determinants of postprandial lipemia in FCH. This is an interesting paper contributing to the limited knowledge of lipoprotein metabolism in FCH. One of the major shortcomings of this paper is the lack of a control group, which makes it impossible to differentiate between FCH-specific and FCH-non-specific processes. The authors clearly acknowledge this in the discussion.

Minor essential revisions:

It is no fully clear whether apoB48 baseline levels were included in the correlation analyses. One would expect this to be a major determinant of postprandial lipemia.

The authors may also want to acknowledge more clearly that fasting TG are always the most potent predictor of postprandial triglyceridemia. Some investigators (the Finnish group among others) have launched complement component C3 as a major determinant of postprandial lipemia. Did the investigators include these measurements in their study?

Page 12, it is of great interest that the chylomicron response was independent from triglycerides and other classical parameters. Does this point at an FCH-specific metabolic disturbance? Could this reflect impaired intestinal lipoprotein handling?

Page 13, first line, it seems inadequate to speak of “an abnormal lipid response” when there was no reference group available.

Page 10, line 214: HDL-c instead of c-HDL

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

Quality of written English: Acceptable

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'