Reviewer’s report

Title: The association of hypertriglyceridemia with cardiovascular events and pancreatitis: A systematic review and meta-analysis

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Reviewer: Yau-Jiunn Lee

Reviewer’s report:

Major:
1. The advantage of meta-analysis is to resolve controversial clinical issues by pooling the results of relevant studies. However, based on current literature, it is already known that hypertriglyceridemia is a risk factor to acute pancreatitis. That, to performing a meta-analysis to the topic of association between hypertriglyceridemia and acute pancreatitis was not reasonable and the author also did not make a thesis to this issue in the article. In addition, only one article was suitable for inclusion to investigate the association between hypertriglyceridemia and pancreatitis. Based on the above facts, the author should reconsider the rationale of discussing the issue of association between hypertriglyceridemia and acute pancreatitis.

2. The highlight of this study is that the author concluded hypertriglyceridemia was associated with cardiovascular mortality, myocardial infarction and cardiovascular events. In 2007, Sarwar et al. performed a meta-analysis study and found that there was a significant association between triglyceride values and coronary heart disease risk by pooling 29 prospective studies (Circulation. 2007;115:450-458.). Furthermore, Sarwar et al. nicely performed subgroup analyses (grouped by study size, location, population source, duration of follow up, gender, fasting or non-fasting status, analytic methods and HDL-C adjustment) and confirmed the consequence between hypertriglyceridemia and CVD. The results of current article may hardly provide further clinical information.

3. Obviously, authors did not review the literature extensively, and the 1st paragraph on page 10 describes the strength of current study needed to be revised.

Minor:
1. The section of “Introduction” should be reconstructed. In the article, it is hardly to realize the background of performing a meta-analysis to their interested issues (i.e. CVD and pancreatitis). Author mainly discussed the epidemiology, definitions of hypertriglyceridemia across past 20 yeas and management of hypertriglyceridemia, the detailed controversies and arguments of hypertriglyceridemia in association to the risk of CVD and pancreatitis were lacking. Rewrite this section is required to help readers to understand the rationale of current study.

2. The figure of forest plot is difficult to read. The author could make figures of
investigated disease separately, instead presented their result as a single figure.

3. The paragraph of “Result” is too simplified. Please provide detailed information of each analysis (e.g. number of studies included, case number). Moreover, although there were non-significant results, the illustration of subgroup analysis (Table 3) should be provided.

4. The section of “discussion” should be revised. The most paragraphs were not relevant to the findings of present article, especially in the subsection of “implications”.

**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 interest.