Reviewer's report

Title: The clinical significance of serum lipoprotein ratio in assessing early-stage atherosclerosis.

Version: 2
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Reviewer: SHINJI MAKITA

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Caie et al examined relationships between some lipid indices and early carotid atherosclerosis defined by increased IMT or presence of plaque. They concluded that LDL-C/HDL-C ratio is an independent predictor for an early carotid atherosclerosis in the Chinese general population compared with LDL-C or HDL-C alone.

The manuscript is well written, however, there is one major concern about data description.

Major compulsory revision

Line 61, in the abstract, they described that TC/HDL-C ratio (OR; 1.367, 95%CI; 0.975-1.917, p<0.05) were significantly associated with the presence of carotid plaque after adjustment of age. In line 196, the presence of carotid plaque was significantly and independently predicted by TC/HDL-C ratio (OR; 1.367, 95%CI; 0.975-1.917, p<0.05). On the other hand, in the Table 4, LDL-C/HDL-C ratio was included by stepwise analysis with the data of OR=1.367, 95%CI 0.975-1.917, p=0.037. Does this value show the data of TC/HDL-C? If so, no data of LDL-C/HDL-C are shown. Furthermore, “95%CI 0.975-1.917” is NOT significant level, and does not respond to “p=0.037”, because the range is across the level of 1.000.

In the ROC curve analysis, it seems that TC/HDL-C ratio is the best predictor for the presence of plaque than (or as well as) LDL-C/HDL-C ratio.

I cannot understand their main conclusion from these statistical data.

Minor essential revision

#1. Diabetes or uncontrolled hypertension were excluded in the present analysis. Why these were excluded? Please explain.

#2. They mentioned that non-HDL-C level failed to be an independent index for predicting early-stage atherosclerosis in present study. It seems that this sentence is not necessary to describe in the conclusion section, because non-HDL-C had some significant relationships with carotid atherosclerotic findings. Furthermore, lack of statistical power such as small number of population may cause this negative data.

#3. All p values should be described as actual value, not use p<0.05.
Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.