Reviewer’s report

Title: Treatment with betablockers is associated with higher gray-scale median in carotid plaques.

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Reviewer: Hong Ji Song

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Treatment with betablockers is associated with higher gray-scale median in carotid plaques

This article examined the association between the presence of echolucent carotid plaques as defined by low ultrasound gray scale median (GSM) and treatment with betablockers. This paper addresses a clinically and theoretically important question. To improve the quality of the result, I’d like to give you my comments as follows.

[Major Compulsory Revisions]

1. Tables for simple and multiple linear regressions and logistic regression analysis

Researchers addressed that "simple and multiple linear regressions were used to explore the relationship between two or more continuous variables, while logistic regression was used in case of dichotomous variables" on the line 164 ~ 166 in method section of the manuscript. However, there were no tables of simple and multiple linear regressions and logistic regression analysis in the manuscript. The tables for the simple and multiple linear regressions and the logistic regression analysis should be included in the article.

2. Variables which were included in the regression model

BMI was one of the variables which showed significant difference between two groups (Table 1). Furthermore, BMI influenced on the disease outcome including atherosclerosis. However, BMI was not included in the regression model (line 166 ~ 167). What were the criteria for the judgement to select the variables which were included in the regression model? It should be clarified in the method section.

[Minor Essential Revisions]

1. Since this is a cross-sectional study, it is appropriate to refrain from using terms of beneficial or stabilizing effect, and rather use terms such as association. Similarly, it is appropriate to refrain from using term of "study cohort" on the line 181, and rather use terms such as "study population".

2. Table 1.
The results of GSM in two groups should be included in Table 1.

3. Discordance between Fig Legends and Fig.
   Fig 1 & 2 in Figure legends
   Fig 1, 2, & 3 in Figure

   **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.