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Correspondence

Comments on: "High ankle-brachial index and risk of cardiovascular or all-cause mortality: A meta-analysis"

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To the Editor,

We read with great interest the recent updated article by Gu et al. suggesting high Ankle-Brachial Index (ABI) is independently associated with an increased risk of all-cause mortality [1]. The authors did a great work and we would like to congratulate them. However, we would like to comment on a few issues in the study that are important for clinicians dealing with this situation and expand on the pooled analysis using the same data included in the current paper. We would like to emphasize some important points about this well-written study.

Firstly, this study did not consider other criteria of the patient exclusion such as arrhythmia and aortic valve diseases. However, the description and definition of the patient exclusion criteria are diverse among each study and sometimes uncertain. Thus, it was impossible to quantitatively include these factors in the statistical analysis. This implies that the success of the prognostic prediction strongly relies upon the quality of the study itself. Hence, these confounding factors will probably explain this association, but many of them were not taken into consideration in the analysis. However, it would be helpful if the authors could provide this information. Additionally, publication bias was not considered in this study. As such, denying the existence of unpublished studies that could affect the statistical results is difficult.

Furthermore, this study did not consider the difference of covariates entered into the Cox multivariate model in each study. It is possible that the success or failure of prognostic prediction is induced by missing covariates or inappropriate adjustment. Besides, this study considered only a few parameters potentially included in the multivariate logistic analysis. There might be other important factors that should have been included. In our judgment, the authors should share their ideas about this issue with their readers, to add value to their study. Finally, the association between ABI and all-cause mortality is not surprising, but the authors did not explain in what way their findings may impact daily clinical practice. In addition, PubMed and Embase were the only database used in this study.

A patient-level meta-analysis to clarify this question will help clear the waters further on this issue. Furthermore, subgroup analysis according to gender and medical therapy (if any) should be addressed. While advances in technologies have helped elucidate many aspects of these diseases, many mysteries still remain. Therefore, an in-depth examination of cardiovascular outcome and all-cause mortality data in conjunction with basic science data is critical for a detailed understanding of benefits and risks of newer treatment modalities.

Conflict of interest

The authors declared they do not have anything to disclose regarding conflict of interest with respect to this manuscript.

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