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Correspondence

Reply to letter to the editor regarding "Prevalence and impact of scan-related anxiety during Coronary CT angiography: A prospective cohort study of 366 patients"

Dear Dr Weg,

We would like to thank you for your thoughtful comments and understandable interrogations regarding our paper.[1]

In response, we would like to highlight that the clinical observation at the origin of our work was that, in a routine Coronary CTA practice, one could imagine that stressed patients might benefit from anxiolytics as an adjunction/surrogate to the usual heartrate-control premedication. Therefore, assessing their scan-related anxiety level might be useful to identify these potential patients that could benefit from anxiolytics.

Our analysis suggests that quantified anxiety is not independently correlated to the outcome, *i.e.* the image quality of the Coronary CTA. In addressing your concern regarding this conclusion, we feel it is important to emphasize the wording: we concluded that there is an absence of *correlation*, not an absence of *effect*. The specific use of an ordinal logistic regression model allowed us to mitigate the effect of suspected confounding variables such as age, gender, Body Mass Index, type of CT scanner used (64 versus 256 rows) and heartrate at the time of acquisition. Of note, the heart rate - which at the time of acquisition exceeded 70 bpm in 15 (4.4%) patients – and the Body Mass Index had the most negative correlation with the Coronary CTA image quality, while akin to reported anxiety, gender demonstrated no correlation. As such, we feel confident in stating that, in the setting of the SCCT recommended Coronary CTA acquisition protocol,[2] anxiety level has no independent correlation with the image quality.

With respect to patients being rescheduled due to ineffective rate-control preparation, please note that while we allowed for this in the inclusion criteria, in actuality no patient that was approached for participation in the study had to be rescheduled. Therefore, this was not a confounding factor in our work, but might be an issue for consideration in future studies if such should occur.

Finally, regarding the premedication protocol, our policy is to administrate an initial dose of metoprolol (25–100mg) or diltiazem (60–120mg) based on patient's heartrate and morphotype and to repeat every 30 minutes until target is achieved or maximum dose is reached.

We hope that we have satisfactorily addressed your questions, and we thank you again for your interest in our work.

References

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2. Abbara S, Blanke P, Maroules CD, et al. SCCT guidelines for the performance and acquisition of coronary computed tomographic angiography: a report of the society of cardiovascular computed tomography guidelines committee: endorsed by the north American society for cardiovascular imaging (NASCI). *Journal of cardiovascular computed tomography.* 2016;10(6):435–449.

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