Response to a letter on the article "Predictors of periprocedural myocardial infarction after rotational atherectomy"

Michał Błaszkiewicz[1], Kamila Florek[1], Wojciech Zimoch[2], Krzysztof Reczuch[2]

[1]Students' Scientific Group of Invasive Cardiology, Institute of Heart Diseases, Wroclaw Medical University, Wroclaw, Poland
[2]Department of Cardiology, Institute of Heart Diseases, Wroclaw Medical University, Wroclaw, Poland

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In the current issue of "Advances in Interventional Cardiology", Kivrak *et al*. reference our article "Predictors of periprocedural myocardial infarction after rotational atherectomy", where we identified the prevalence and key predictors of periprocedural myocardial infarction (MI) [1, 2].

The authors suggest that patients with coronary artery bypass grafting (CABG) are expected to have a higher SYNTAX score. However, in our study we did not identify significant differences in SYNTAX scores between CABG and non-CABG groups (16 (10–25) vs. 16 (10–23); $p = 0.77$), which is consistent with previous studies [3].

According to the protective distal filters mentioned by Kivrak *et al*., we did not use such devices in our study. Rotational atherectomy (RA) requires a dedicated guidewire to which only the burr can be attached. Although protective filters may reduce the risk of distal embolization, they cannot be used during the RA procedure.

Indeed, duration of burr passage was higher in the MI group (140 (89–166) vs. 81 (50–141) [s]; $p = 0.03$). However, it was not significant while performing logistic regression analysis and its impact on procedural outcome is likely to be of lesser significance. To assess the influence of the contrast medium volume on periprocedural MI it should have been evaluated before the complication occurrence. Unfortunately, we do not have such data. The total amount of the administered contrast is not valuable for assessment because periprocedural complications usually prolong the procedure duration and necessitate an increased volume of contrast medium.

In conclusion, there is no SYNTAX score difference between patients who underwent CABG and those who did not. Distal protective filters are not recommended in RA procedures. Additionally, the duration of burr passage and the volume of contrast medium do not appear to be suitable predictors of periprocedural MI after RA.

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Ethical approval

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Conflict of interest

The authors declare no conflict of interest.

References

1. Kivrak A, Tanik VO. Rethinking periprocedural myocardial infarction risks: discrepancies and omissions in the study of rotational atherectomy outcomes. Adv Interv Cardiol 2024; 20: 241-2.
2. Błaszkiewicz M, Florek K, Zimoch W, et al. Predictors of periprocedural myocardial infarction after rotational atherectomy. Adv Interv Cardiol 2024; 20: 62-6.
3. Farooq V, Girasis C, Magro M, et al. The CABG SYNTAX Score – an angiographic tool to grade the complexity of coronary disease following coronary artery bypass graft surgery: from the SYNTAX Left Main Angiographic (SYNTAX-LE MANS) substudy. EuroIntervention 2013; 8: 1277-85.

Corresponding author:
Michał Błaszkiewicz, Students' Scientific Group of Invasive Cardiology, Institute of Heart Diseases, Wroclaw Medical University, Wroclaw, Poland, phone: +48608540729, e-mail: blaszkiewicz.mj@gmail.com
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