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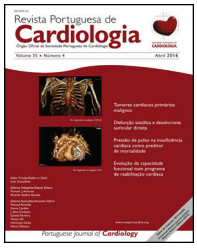

LETTER TO THE EDITOR

Determinants of safety of early discharge after primary percutaneous coronary intervention

Determinantes de segurança na alta antecipada após intervenção coronária percutânea primária

To the Editor,

I read the article entitled ''Applicability of the Zwolle risk score for safe early discharge after primary percutaneous coronary intervention in ST-segment elevation myocardial infarction'' by Tralhão et al.,[1] published in *Revista Portuguesa de Cardiologia* in 2015, with great interest. The investigators reported that the Zwolle risk score (ZRS) showed excellent discriminative ability to identify low-risk ST-elevation myocardial infarction (STEMI) patients who could be safely discharged within 72 hours of primary percutaneous coronary intervention (PPCI).[1]

According to current recommendations, patients with a ZRS $\leq$3 are considered at low risk and are eligible for discharge 72 h after PPCI.[2] The ZRS is based on age, heart failure signs, localization of infarction, ischemia time, number of diseased coronary vessels, and post-procedural angiographic result, and has been shown to predict 30-day post-discharge mortality.[2]

Natriuretic peptides have been shown to provide additional prognostic information in patients with STEMI.[3] Brain natriuretic peptide (BNP) levels can act as a global marker reflecting myocardial damage and heart failure.[3] Ganovska et al.[4] reported that patients with high ZRS and BNP $\leq$200 pg/ml had similar mortality and hospital stay to those with low ZRS. In this context, it might be useful to measure serum natriuretic peptide levels due to their prognostic significance.

Microvascular obstruction (MVO) occurs frequently in patients with STEMI even after prompt revascularization of the culprit artery. Depending on the severity of the ischemic injury, microvascular injury can lead to MVO, and MVO can lead to intramyocardial hemorrhage (IMH). Microvascular damage and reperfusion injury after STEMI are important markers of outcomes. Cardiac magnetic resonance (CMR) provides a comprehensive analysis of myocardial infarction, including assessment of myocardial scar, MVO, and IMH.[5] In this context, it might be beneficial to assess MVO and IMH by CMR in order to identify patients eligible for early discharge.

Conflicts of interest

The author has no conflicts of interest to declare.

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