

Cardiac biomarkers are highly prognostic of in-hospital mortality in patients with COVID-19: what is the effect of renin-angiotensin system blockers without baseline heart failure on these biomarkers?

To the editor In the current issue of *Polish Archives of Internal Medicine*, Kloczek et al¹ provide important and interesting evidence concerning the prognostic role of cardiac biomarkers, namely high-sensitivity cardiac troponin T and N-terminal pro-B-type natriuretic peptide (NT-proBNP), in patients with COVID-19, regardless of a history of heart failure (HF). Notably, in individuals without prior HF, logistic regression analysis of the NT-proBNP concentration assessed on admission documented that each increase by 100 pg/ml was associated with an increase in the odds for death by 1%.¹ As stated by the authors, one-third of the patients with baseline HF received renin-angiotensin system (RAS) blockers prior to inclusion in the study. However, no such data were provided for the patients without baseline HF, who also had comorbidities with treatment indications for RAS blockers,¹ that is, arterial hypertension (64.79%), coronary artery disease (17.72%), or cerebrovascular disease (10.05%).

Long-term treatment with RAS blockers, either angiotensin-converting enzyme inhibitors or angiotensin II receptor blockers, in patients with HF has been shown to cause a significant decrease in NT-proBNP levels.² Significant reductions have also been demonstrated in patients with arterial hypertension and no HF at baseline.³

Therefore, it would be interesting to know whether there were any differences in NT-proBNP levels between the patients without HF on admission based on the baseline treatment with RAS blockers, and subsequently, if these patients had different COVID-19 surrogate outcomes. Such information would be of great value, especially in light of recent evidence supporting the hypothesis that RAS blockers are associated with favorable outcomes in hypertensive patients with COVID-19,^{4,5} such as

reduced mortality and risk for hospitalization. Of course, it still has to be established whether in-hospital use of RAS blockers may exert any beneficial effect on patients with COVID-19, especially those who develop cardiovascular complications in the course of infection.

ARTICLE INFORMATION

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CONFLICT OF INTEREST None declared.

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