Anatol J Cardiol 2018; 19: 152-8 Letters to the Editor

## **Author's Reply**

To the Editor,

We would like to thank the readers for their valuable comments related to our article entitled "Impact of continuation of metformin prior to elective coronary angiography on acute contrast nephropathy in patients with normal or mildly impaired renal functions" published in Anatol J Cardiol 2017; 18: 334-9 (1). Contrast-induced nephropathy (CIN) is associated with longer hospital stay and increased morbidity and mortality (2). Although the exact pathophysiology of CIN is not well-defined, several mechanisms such as renal medullary hypoxia, direct toxicity of contrast media, cytokine-induced oxidative stress, and inflammation have been proposed (3). As the readers have mentioned, multiple patient-related risk factors such as hyperuricemia, hypoalbuminemia, and microalbuminuria may contribute to the development of acute CIN after coronary angiography (CAG) (4, 5).

In our study, our main purpose was to evaluate the association between metformin continuation during CAG and CIN in patients with normal or mildly impaired renal functions. There-

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fore, we excluded all patients with eGFR < 60 mL/min/1.73 m². In addition, the risk of CIN was assessed using the Mehran risk score, which was moderate. Unfortunately, the baseline patient characteristics in our study were relatively preserved in terms of renal functions, and as the number of patients with hyperuricemia was relatively limited (only six patients), we did not perform subgroup analysis for patients with hyperuricemia in terms of CIN. Moreover, in our study population, there were no patients with hypoalbuminemia. Hence, the impact of these risk factors on CIN mentioned by the readers need to be confirmed in further clinical trials aiming for this purpose.

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