these factors affecting the association between ejection fraction and RD during the first admission of patients with STEMI to the hospital. We think these lacks of the study may affect the results.

🆔 **Şahin İşcan,** 🆔 **Börteçin Eygi,** 🆔 **Yüksel Beşir,** 🆔 **Orhan Gökalp**
Department of Cardiovascular Surgery, Katip Çelebi University İzmir Atatürk Training and Education Hospital; İzmir-*Turkey*

Reference

1. Savic L, Mrdovic I, Asanin M, Stankovic S, Krljanac G, Lasica R. Prognostic impact of renal dysfunction on long-term mortality in patients with preserved, moderately impaired, and severely impaired left ventricular systolic function following myocardial infarction. Anatol J Cardiol 2018; 20: 21-8.

Address for Correspondence: Dr. Şahin İşcan,
Katip Çelebi Üniversitesi,
Atatürk Eğitim ve Araştırma Hastanesi,
Kalp ve Damar Cerrahisi Anabilim Dalı,
İzmir-Türkiye
Phone: +90 505 488 20 90
E-mail: sahiniscan@gmail.com

Author`s Reply

To the Editor,

We would like to thank the authors for their interest in our study (1). Renal dysfunction (RD) at admission can be an indicator of a chronic state or acute deterioration. We agree that the lack of information on renal function during a 6-year follow-up is a study limitation, as stated in the section "Study limitation." The change in renal function over time (including acute kidney injury during hospitalization) can potentially add predictive information to the baseline measurement. However, in the literature, there are many studies that investigated the prognostic impact of renal function on long-term outcomes after ST-elevation myocardial infarction (STEMI) by analyzing only baseline estimated glomerular filtration rate (eGFR) (2-4). Left ventricular systolic function (and EF as one of its measures) in patients with STEMI can change after the acute phase, especially in the first few months. Despite that, many clinical trials so far have used only one measurement of EF (often baseline EF, before primary PCI) to analyze long-term prognosis in patients with STEMI (2). Furthermore, baseline RD and baseline EF are parameters included in risk assessment scores for predicting mortality in patients with STEMI (e.g., CADILLAC score) (5). It is a well-known fact that aging leads to the decrease in the values of eGFR, and therefore, age of the patient one of the most important independent predictors for RD. Women with acute myocardial infarction are generally older than men; however, it is a common finding that the female gender is also an independent predictor

of RD (6). The patient's age and gender are included in the MDRD formula for GFR assessment. Regardless of that, in our study, age was included in the multiple Cox analysis, and age (years) remains to be a strong independent predictor of mortality in patients with preserved and moderately reduced EF but not in patients with severely reduced EF. When we analyzed predictors of mortality in the whole cohort (not shown in the paper) and in each group separately, gender was not a predictor of mortality (univariate analysis) and was not included in the multiple Cox analysis. Finally, our main objective was to show that strong and negative prognostic impact of baseline RD may differ in patients with STEMI depending on EF. Further investigations should be conducted to verify these findings.

🆔 **Lidija Savic,** 🆔 **Igor Mrdovic,** 🆔 **Milika Asanin,**
🆔 **Sanja Stankovic*,** 🆔 **Gordana Krljanac,** 🆔 **Ratko Lasica**
Clinic of Cardiology and Coronary Care Unit, *Center for Medical Biochemistry, Clinical Centre of Serbia, Emergency Hospital; Belgrade-*Serbia*

References

1. Savic L, Mrdovic I, Asanin M, Stankovic S, Krljanac G, Lasica R. Prognostic impact of renal dysfunction on long-term mortality in patients with preserved, moderately impaired, and severely impaired left ventricular systolic function following myocardial infarction. Anatol J Cardiol 2018; 20: 21-8. [CrossRef]
2. Moukarbel GV, Yu ZF, Dickstein K, Hou YR, Wittes JT, McMurray JJ, et al. The impact of kidney function on outcomes following high risk myocardial infarction: findings from 27 610 patients. Eur J Heart Fail 2014; 16: 289-99. [CrossRef]
3. Hawranek M, Gierlotka M, Gasior M, Hudzik B, Desperak P, Cislak A, et al. Renal function on admission affects both treatment strategy and long-term outcomes of patients with myocardial infrction (from Polish Registry of Acute Coronary Syndromes). Kardiol Pol 2017; 75: 332-43. [CrossRef]
4. Campbell NG, Varagunam M, Sawhney V, Ahuja KR, Salahuddin N, De Palma R, et al. Mild chronic kidney disease is an independent predictor of long-term mortality after emergency angiography and primary percutaneous coronary intervention in patients with ST-elevation myocardial infarction. Heart 2012; 98: 42-7. [CrossRef]
5. Halkin A, Singh M, Nikolsky E, Grines CL, Tcheng JE, Garcia E, et al. Prediction of mortality after primary percutaneous coronary intervention for acute myocardial infarction: the CADILLAC risk score. J Am Coll Cardiol 2005; 45: 1397-405. [CrossRef]
6. Sederholm Lawesson S, Tödt T, Alfredsson J, Janzon M, Stenestrand U, Swahn E. Gender difference in prevalence and prognostic impact of renal insufficiency in patients with ST-elevation myocardial infarction treated with primary percutaneous coronary intervention. Heart 2011; 97: 308-14. [CrossRef]

Address for Correspondence: Lidija Savic, MD,
Clinic of Cardiology and Coronary Care Unit,
Clinical Centre of Serbia,
Emergency Hospital; Pasterova 2 11000,
Belgrade-*Serbia*
Phone: +381 11 3662331
E-mail: lidijasavic2007@gmail.com