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Association of Glomerular Filtration Rate With Slow Coronary Flow in Patients With Normal to Mildly Impaired Renal Function

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We thank Cabuk et al[1] for their comments.[2] They raise concerns about the equation used for reporting estimated glomerular filtration rate (eGFR) in our study and how this could impact on our results. The equation from the Modification of Diet in Renal Disease (MDRD) Study is frequently used to report the eGFR. We agree that the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation is more accurate than the MDRD Study equation, particularly in patients with a GFR $\geq$60 mL/min/1.73 m^2.[3] The MDRD Study equation has been evaluated in several populations, including African Americans, Europeans, and Asians.[4,5] Several studies have shown that the MDRD Study equation has reasonable accuracy in nonhospitalized patients thought to have CKD and patients with and without diabetes or kidney disease.[6-8] The MDRD Study equation has not been validated in children (age <18 years), the elderly individuals (age >85 years), pregnant women or in some ethnic subgroups, such as Hispanics. In our study, we excluded these patients. Neither the MDRD nor the CKD-EPI Study equation is ideal across all GFR ranges and populations.[5,9]

Cabuk et al[1] wanted to clarify the possible factors that can influence the creatinine levels and eGFR in our study. Patients with altered muscle mass (eg, reduced by amputation, paraplegia, immobilization, or a neuromuscular disorder and increased by dietary protein intake or creatine dietary supplements) were excluded from our study. In addition, baseline medications were not different between the group with slow coronary flow and the control group.

Cabuk et al[1] also wanted to clarify the measurement of creatinine. Creatinine was measured by a qualified technician using enzymatic assays (Roche Products Ltd, Japan) on a fully automatic biochemical autoanalyzer (COBAS c8000; Roche Products Ltd,) with the Jaffe method. This laboratory method is frequently used for measuring creatinine. We agree that the National Kidney Disease Education Program recommends calibrating serum creatinine measurement to isotope dilution mass spectrometry, but in our laboratory, this method was not used routinely.[10]

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