

radiation exposure in these asymptomatic patients cannot be understated. While coronary CTA provides detailed anatomic assessment of coronary atherosclerotic disease burden, a routine coronary CTA does not provide any functional information about the presence and extent of myocardial ischemia. Performing an investigation in any truly asymptomatic patient population is fraught with risks and potential ethical and clinical dilemmas in interpreting and dealing with the investigation results. When a good clinician orders an investigation, *primum non nocere* should always be the first guiding principle.

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THE AUTHORS REPLY:



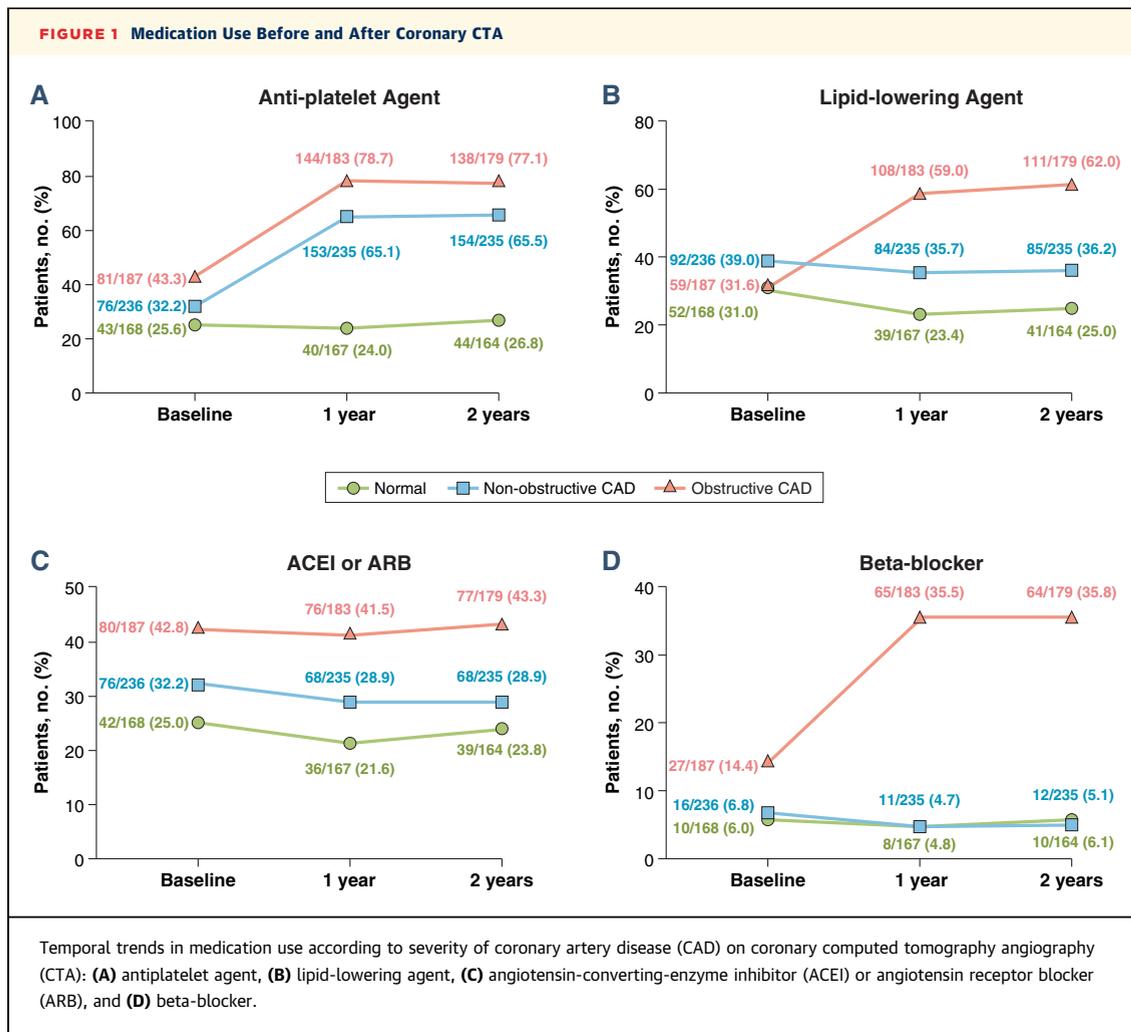
We thank Dr. Xu and colleagues for their comments on our paper (1).

Coronary artery disease (CAD) is the major cause of mortality in patients with type 2 diabetes. Consequently, there has been substantial interest in the early detection and treatment for asymptomatic CAD in these patients. Even in the DIAD (Detection of Ischemia in Asymptomatic Diabetics) study, patients

with moderate-to-large ischemia had a 6-fold greater cardiac risk than did those with normal or small perfusion defects. A post hoc analysis also showed that the incidence of cardiac events was higher in the high-risk group classified by the UKPDS (United Kingdom Prospective Diabetes Study) risk engine (1.2% in low risk vs. 2.5% in intermediate risk vs. 9.9% in high risk; $p = 0.002$). Compared with the DIAD and FACTOR-64 (Screening For Asymptomatic Obstructive Coronary Artery Disease Among High-Risk Diabetic Patients Using CT Angiography, Following Core 64) trials, our study showed relatively lower cardiac event rates. However, a more important finding was that there was a significant difference in cumulative cardiac event rates according to severity of CAD (0.6% in normal coronary arteries vs. 3.0% in nonobstructive CAD vs. 11.2% in obstructive CAD; $p < 0.001$). These findings suggest that we should focus on finding high-risk patients even in asymptomatic type 2 diabetes.

In the present study we enrolled study participants between February 2008 and June 2012. However, the levels of glucose, lipid, and blood pressure control in participants were comparable with those of the ACCORD (Action to Control Cardiovascular Risk in Diabetes) and ADVANCE (Action in Diabetes and Vascular Disease: Preterax and Diamicron MR Controlled Evaluation) trials. Accordingly, we think that our study participants represent contemporary patients with type 2 diabetes. In addition, to resolve an issue of medication use, please see **Figure 1**. On the other hand, the 2013 guidelines of the American College of Cardiology/American Heart Association for the management of cholesterol expanded the statin treatment to nearly all adult diabetic patients. We also agreed that clinical evaluation of asymptomatic diabetic patients after the application of the new guidelines is necessary.

In our study, to avoid the limitation of coronary computed tomography angiography (CTA), patients with obstructive CAD on coronary CTA were recommended to undergo invasive coronary angiography or stress test (exercise electrocardiography or myocardial perfusion imaging). Also, to avoid unnecessary revascularizations, we followed the management strategy of the BARI 2D (Bypass Angioplasty Revascularization Investigation 2 Diabetes) study, which included asymptomatic type 2 diabetic patients (17.9%), and revascularization was only performed in patients with CAD documented on angiography ($\geq 50\%$ stenosis of a major epicardial coronary artery associated with a positive stress test or $\geq 70\%$ stenosis of a major epicardial coronary artery). In addition, among 10 cardiac deaths, 4 had a prior history of coronary revascularization.



A major concern about coronary CTA use is exposure to radiation. However, recent advances in equipment and techniques have reduced radiation exposure to 0.21 mSv, equivalent to the dose of chest x-ray. In the near future, with further diagnostic accuracy, cost effectiveness, prognostic utility, and lower radiation risk, we think that coronary CTA would have a potential role in identifying asymptomatic type 2 diabetic patients with high risk.

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American-Style Football Players as Modern Gladiators: Could Heart Rate Provide All Answers?



We have read with a great interest a recently published study regarding blood pressure (BP) and left ventricular (LV) remodeling in American-style football players (1). The authors reported that players who are playing at a certain position (linemen) have significantly higher BP, increased prevalence