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LETTER

Association between the extent of coronary artery disease and prognosis in patients with diabetes mellitus [Letter]

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Dear editor

The correlation between the extent of coronary artery disease (CAD) and clinical outcomes among patients with diabetes mellitus (DM) was unclear. Recently, we read with great interest the study by Gyldenkerne et al.[1] The authors conducted a cohort study of patients with DM who underwent coronary angiography and were stratified according to the extent of coronary artery disease: 0-, 1-, 2- or 3-vessel disease or diffuse vessel disease, with myocardial infarction, all-cause death, and major adverse cardiovascular events (MACE) as endpoints. They concluded that the extent of coronary artery disease is a significant risk factor for myocardial infarction and death in patients with DM. The research appears informative clinically. Thus, we addressed some issues regarding this study.

First, low-density lipoprotein cholesterol (LDL) plays a vital role in the perpetuation and pathogenesis of atherosclerotic CVD.[2] The increased level of LDL is associated with an elevated risk of CVD events and decreasing of LDL is associated with a reduction in the event.[3] Nevertheless, although the percentage of patients using statin was similar between the three groups, the LDL level was not described in the baseline characteristics. The conclusion may not be rigorous without considering this vital factor.

Second, the HbA1c level at baseline and during follow-up was associated with the risk of CVD.[4] For patients with CAD and DM, the HbA1c was a routine test during the follow-up time. Unfortunately, the baseline HbA1c was not reported in the study by Gyldenkerne et al.

Third, although the coronary angiography (CAG) could not describe the lesion morphology and plaque vulnerability in the vessel wall, it could identify the lesion location and the number of lesions. Indeed, the lesion location was related to the prognosis for patients with CAD. For instance, patients with critical proximal left anterior descending may go on to develop massive anterior wall myocardial infarction. Additionally, one vessel may have more than one lesions. Therefore, the association between the extent of coronary artery disease and outcomes should be interpreted cautiously without reporting the lesion location and the number of lesions.

Fourth, more pieces of evidence showed that the major adverse cardiac events were different between the male and female in patients with CVD.[5] In this study, the percentage of the male was different between the three groups. Did the authors performer the subgroup analysis based on gender?

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Fifth, treatment compliance was poor in patients with CAD and DM because there are many oral drugs in these patients. In this situation, the comparison between the patients with CVD and those without CVD may be influenced by the treatment compliance.

Disclosure

The authors report no conflicts of interest in this communication.

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