CONCLUSION
Our data showed that, despite being younger, patients with *LDLR* variants had significantly higher TC and LDL-C levels at baseline, lower prevalence of diabetes and hypertension, and similar prevalence of CVD. While TC and LDL-C levels were significantly lower in all groups after 12 months, not all patients were on high-intensity statins. Probands attaining LDL-C goals were low, suggesting undertreatment. Increased awareness for treatment in these patients should be emphasized.

KEYWORDS
familial hypercholesterolemia, statins, ezetimibe, *LDLR*, *APOB*

OBESITY

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THE ASSOCIATIONS OF ALBUMINURIA AND METABOLIC SYNDROME WITH ALL-CAUSE MORTALITY IN PATIENTS WITHOUT SIGNIFICANT CORONARY ARTERY DISEASE

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INTRODUCTION
Metabolic syndrome is a constellation of cardiovascular risk factors associated with a higher risk of mortality. Albuminuria was previously part of the criteria for metabolic syndrome. We investigated the associations of albuminuria and metabolic syndrome with all-cause mortality among patients without significant coronary artery disease.

METHODOLOGY
We enrolled 1,394 patients who had coronary angiography-proven coronary artery disease but no history of diabetes between 2009 and 2013. All patients underwent an oral glucose tolerance test to determine their glucose regulation state. Metabolic syndrome was determined using the criteria of the National Cholesterol Education Program Adult Treatment Panel III. A spot urine sample was collected to determine the urinary albumin to creatinine ratio (UACR). Information on all-cause mortality was confirmed until March 2023. Cox-proportional hazard models were conducted to examine the associations of metabolic syndrome and albuminuria with all-cause mortality.

RESULTS
A total of 551 patients without significant coronary artery disease were analyzed. After a median follow-up period of 8.94 years, there was no significant difference in all-cause mortality in patients with and without metabolic syndrome (adjusted HR 0.989, 95% CI: 0.530-1.846, $p = 0.971$). In contrast, the presence of albuminuria was associated with an increase in the risk of mortality in both unadjusted (HR 3.683, 95% CI: 2.105- 6.445, $p < 0.001$) and adjusted (HR 2.763, 95% CI: 1.559-4.894, $p < 0.001$) HR models, respectively. Further classification depending on the level of albuminuria showed that the presence of microalbuminuria is associated with a trend towards increased mortality (HR 1.950, 95% CI: 0.971-3.916, $p = 0.061$) while the presence of macroalbuminuria is associated with an almost eight-fold increase in mortality (HR 7.901, 95% CI: 3.272-19.079, $p < 0.001$).

CONCLUSION
We found albuminuria to be an independent predictor of long-term all-cause mortality even in patients without significant coronary artery disease and no history of diabetes. The presence of metabolic syndrome was not associated with increased mortality. Our findings suggest that albuminuria should be screened and monitored even amongst patients without significant coronary artery disease.

KEYWORDS
albuminuria, non-significant coronary artery disease, metabolic syndrome, mortality