

ABSTRACT

Background: The fibrosis-4 (FIB-4) index is used to evaluate liver disease patients. It can also be used to evaluate the prognosis for heart disease patients. However, its ability to determine the prognosis of severe isolated tricuspid regurgitation (TR) patients is unclear. We aimed to clarify the association between FIB-4 index scores and the cardiovascular prognosis for severe isolated TR patients.

Method and Results: This was a dual-center, retrospective study. From 2011 to 2019, 111 consecutive outpatients with severe isolated TR (mean age, 68.6 years; 53.2% male) were analyzed. Major adverse cardiovascular events (MACEs) were defined as the composite of cardiovascular death, hospitalization for heart failure, myocardial infarction, and stroke. We also evaluated the association between FIB-4 index scores and echocardiography. During a median follow-up of 3.0 years, 24 patients were lost to follow-up and 40 MACEs occurred. Baseline FIB-4 index scores for patients with MACEs were significantly higher than those for patients without MACEs. A multivariate analysis revealed that FIB-4 index scores are significantly associated with MACEs (hazard ratio, 1.89; 95% confidence interval, 1.01–3.54; $p=0.046$). A linear regression analysis indicated that FIB-4 index scores were correlated with echocardiographic parameters, including the left atrial volume index and left ventricular end-diastolic diameter.

Conclusions: The FIB-4 index score may be a useful predictor of MACEs for patients with severe isolated TR.