Prognostic Value of High-sensitivity Troponin T After Percutaneous Coronary Intervention in Patients With Stable Coronary Artery Disease.

Abstract:

The prognostic value of high-sensitivity troponin T after percutaneous coronary intervention in patients with stable coronary artery disease is unclear. We investigated this clinically relevant question in 3463 consecutive patients undergoing percutaneous coronary intervention. This study included patients with stable coronary artery disease and baseline high-sensitivity troponin T below the 99th percentile upper reference limit (0.014?g/L). High-sensitivity troponin T was measured before and at 6, 12 and 24 hours after the procedure. The primary outcome was all-cause mortality. Patients were divided into a group with peak postprocedural troponin T 99th to 5×99th percentile (n=1928), and a group with peak postprocedural troponin T >5×99th percentile upper reference limit (n=793). Advanced age, smaller body mass index, baseline troponin level, complex lesions, bifurcation lesions and stented length were independently associated with elevated troponin T levels after the procedure. The median follow-up was 15.5 months. There were 56 deaths: 5 deaths (1.7%) among patients with peak postprocedural troponin T 99th to 5×99th percentile and 16 deaths (4.3%) among patients with peak postprocedural troponin T >5×99th.
percentile upper reference limit (hazard ratio=1.50; 95% confidence interval, 1.01-2.25; P=.047). After adjustment, peak postprocedural troponin T level was not independently associated with mortality after percutaneous coronary intervention (P=.094). In patients with stable coronary artery disease and without elevated baseline high-sensitivity troponin T, elevated high-sensitivity troponin T level after percutaneous coronary intervention was not associated with postprocedural mortality.