Conclusions: Rate of MACEs was significantly lower in the EES group when compared with the SES, FES, and ZES groups, mainly due to the lower rate of TLR during the 3-year follow-up.

TCT-646
Primary Results Following Percutaneous Coronary Intervention with the 38 mm Resolute Zotarolimus-eluting Stent
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Background: Implantation of drug-eluting stents in long coronary artery lesions is associated with a higher risk for restenosis and stent thrombosis related to the need for multiple and overlapping stents. The Resolute zotarolimus-eluting stent (R-ZES) is manufactured in a 38 mm length to accommodate longer lesions but clinical data to demonstrate efficacy and safety of the longer stent have not been reported.

Methods: A substudy of 2 prospective, multicenter clinical trials; RESOLUTE–US and RESOLUTE–Asia enrolled patients with de novo coronary artery lesions amenable to treatment with the 38-mm-length R-ZES. The target lesion had to be > 35 mm long and the primary endpoint was target lesion failure (TLF) defined as the composite of cardiac death, target vessel myocardial infraction (TVMI), or clinically-driven target lesion revascularization (TLR) by percutaneous or surgical methods. The rate of TLF at 1 year was compared to a performance goal of 19.0% based on literature suggesting an expected TLF rate of 15.1%. All patients were prescribed dual antiplatelet therapy for a minimum of 6 months.

Results: There were 223 patients treated with a 38 mm R-ZES; mean age was 61 years, 78.9% were men, 44.6% were white, 3.6% were black, and 50.9% were Asian. Prior PCI was noted in 27.4% of patients, 37.7% had diabetes mellitus and 53.8% had multivessel disease. Lesions were located in the LAD (52.0%), LCX (20.2%) and RCA (44.4%) and 3.4% were moderately or severely torturous. TIMI flow was 0 or 1 in 6.1% of lesions and 47.9% were branch vessel disease with mean sidebranch stenosis of 30.4%; 91.2% were type C lesions, 30.0% were chronic and 78.9% were acute. 63.4% were left main lesions, 31.9% were left anterior descending, 44.2% were left circumflex, and 44.4% were right coronary arteries. Lesions were located in the LAD (52.0%), LCX (20.2%) and RCA (44.4%) and 53.8% were located in the proximal segment. All patients were prescribed dual antiplatelet therapy for a minimum of 6 months. TLR was observed in 27.4% of patients, 37.7% had diabetes mellitus and 53.8% had multivessel disease. Lesions were located in the LAD (52.0%), LCX (20.2%) and RCA (44.4%)

Conclusions: Rate of MACEs was significantly lower in the EES group when compared with the SES, FES, and ZES groups, mainly due to the lower rate of TLR during the 3-year follow-up.

TCT-647
Value Of High-Density Lipoprotein Cholesterol In Predicting Future Cardiovascular Events Of Patients With Low-Density Lipoprotein Cholesterol At The Time Of Percutaneous Coronary Intervention
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Background: Higher levels of high-density lipoprotein cholesterol (HDL-C) have been associated with decreased cardiovascular risk in epidemiologic studies, although a causal role in question. Dysfunctional HDL has been identified in humans with metabolic syndrome (MS) or coronary artery disease (CAD). Additionally, current determinations of HDL-C may not correlate with the true anti-atherosclerotic properties, casting doubts on its prognostic value. Therefore, the significance of HDL-C on the outcome of patients with CAD requiring percutaneous coronary intervention (PCI) is unclear.

Methods: Patients treated with PCI from 01/2004 to 12/2011 were prospectively enrolled. The lipid panel of those on statin therapy prior to PCI and who had attained a total cholesterol level of <100 mg/dl was analyzed. Major adverse cardiac events (MACE), including all-cause death, Q-wave myocardial infarction, and target vessel revascularization at 1 year were evaluated in relation to the lipid profile at the time of index PCI. Multivariable Cox proportional hazards regression was employed for the entire cohort and for the subgroup of patients with diabetes mellitus (DM) or MSx.

Results: 2789 patients were included. The population’s mean age was 66 years and 68% was male. 53% had a history of CAD, 39.8% had DM and 42.5% had MSx. At 1-year follow-up, a total of 279 patients (10.1%) experienced MACE. Death occurred in 5.2% of the population. HDL-C after adjustment for baseline characteristics did not demonstrate an independent association with MACE in either the main population or the subgroup with MSx (HR 1.00, 95% CI 0.99-1.01, p=0.98) and HDL-C did not independently correlate with MACE at 1 year. These data suggest that HDL-C for patients on statin therapy and controlled LDL may not be an effective biomarker for future clinical events.