TCT-410 Different Vascular Healing Process between Bioabsorbable Polymer-coated Everolimus-Eluting Stents versus Bioresorbable Vascular Scaffolds via Optical Coherence Tomography and Coronary Angioscopy: Early Results from ENdothelial Healing Assessment With Novel Coronary tEchnology (ENHANCE study)

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Methods

This is a prospective, non-randomized, single center clinical trial. We designed a comparison of vascular healing at 4 and 12 months post-implantation of bioabsorbable polymer-coated, everolimus-eluting stents (BP-EES, SYNERGY™) versus bioresorbable vascular scaffolds (BRS, ABSORB™) deployed in the same patient, but in different coronary vessels. 12 eligible human subjects with multi-vessel disease were enrolled in this study. Patients with ST elevation myocardial infarction were excluded. Vascular healing was assessed via optical coherence tomography (OCT) to analyze quantitatively and coronary angioscopy (CAS) to observe inspection of the intracoronary surface morphology.

Results

Four month follow-up imaging has been completed in 9 patients to date. Whereas a homogeneous pattern of neointimal coverage was observed between the two groups via OCT, CAS revealed more red thrombus and yellow plaque with BRS than with BP-EES (6/9 cases vs. 2/9 cases).