



**CONCLUSIONS** IVUS assessment of obstructive lesions showed that clinical characteristics still were able to differentiate the manifestation of coronary artery disease. Negative remodelling was associated with worse angina frequency by the SAQ. Patient reported physical limitation and angina stability were, respectively, associated with necrotic core size and plaque burden.

**CATEGORIES IMAGING:** Intravascular

**KEYWORDS** IVUS, Virtual histology intravascular ultrasound, Vulnerable plaque

#### TCT-370

##### Serial Optical Coherence Tomography Assessment of the Everolimus-Eluting Absorb™ Bioresorbable Vascular Scaffold: Strut Coverage and Dynamic Malapposition Patterns at 9-month

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**BACKGROUND** The illumination of the spontaneous vascular healing pattern following implantation of the everolimus-eluting Absorb™ bioresorbable vascular scaffold (BVS) remains sparse. Optical coherence tomography (OCT) allows accurate and detailed in vivo assessment of the arterial recovery following BVS-implantation.

**METHODS** OCT was performed in 20 stable angina pectoris patients at post-procedure and at 9-month follow-up. Baseline struts were classified according to apposition (well apposed: embedded or protruding, or incompletely apposed (ISA-struts)), and 9-month struts were classified according to apposition and coverage. Also, the optical visibility of the surrounding polymer of the box-shaped struts was assessed at 9-month.

**RESULTS** One BVS was insufficiently flushed post-procedure, and excluded from the baseline OCT-assessment. At baseline, 3,745 struts were analyzed, which of 3,468 struts (92.6%) were apposed (22.4% were embedded, and the remaining 77.6% were protruding). In total, 277 struts (7.4%) were ISA-struts. At 9-month, 3,883 struts were analyzed: 12 (0.3%) were ISA, and 76 (2.0%) were located over SBs. All box-shaped struts were preserved at 9-month, and 2,451 (63.1%) had persistent surrounding optically visible polymer. Sixteen patients

(84.2%) had acute ISA post-procedure, of which 11 patients (68.8%) had resolved ISA at 9-month follow-up. No cases of late acquired ISA were observed at 9-month. In total, 212 struts (5.5%) were incompletely covered. Five uncovered struts were overlying SBs (2.4%), and the remaining 207 uncovered struts (97.6%) were apposed. None of the late malapposed struts were uncovered. Of the 3,671 covered struts (94.5%), 962 (26.2%) were protruding, and 2,709 (73.8%) were embedded. Three patients (15.0%) had completely covered stents at the 9-month follow-up.

**CONCLUSIONS** The rate of acute ISA was high following BVS-implantation in stable target lesions, probably due to underlying plaque-related factors and changes in vessel caliber. However, resolved ISA was observed in the majority of cases, and no cases of late acquired ISA developed during follow-up. A modest rate of uncovered struts was detected at 9-month, and none of these were malapposed.

**CATEGORIES IMAGING:** Intravascular

**KEYWORDS** Bioabsorbable scaffolds, OCT, Vascular healing

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## RENAL INSUFFICIENCY AND CONTRAST NEPHROPATHY

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#### TCT-378

##### The Effect Of The Choice Of Contrast Media On Contrast-Induced Acute Kidney Injury Events In Inpatient Interventional Or Diagnostic Cardiovascular Procedures

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**BACKGROUND** Acute Kidney Injury (AKI) is an adverse event associated with cardiovascular (CV) procedures and may be caused by the use of contrast media (CM). Hospitals code AKI via International Classification of Diseases 9th Revision (ICD-9) and then use an add-on ICD-9 code to indicate that the AKI was a contrast-induced acute kidney injury (CIAKI). The objective of this study was to assess the relationship between iso-osmolar CM and low-osmolar CM agents (LOCM), and CIAKI for those patients undergoing inpatient interventional or diagnostic CV procedures with an AKI event.