Coronary Intervention: Complex Lesions and Patient Subsets
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TCT-65
Clinical impact of IVUS-guided left main PCI: insights from the multicenter study ESTROFA-LM.
Jose De la Torre Hernandez1, Fernando Alonso2, Angel Sanchez Recalde1, Manuel Jimenez Navarro3, Armando Perez de Prado4, Hernandez Felipe5, Omar Abdul-Jawad Alisentr6, Xesu Salvatella7, Jaime Elizaga8, Fernando Rivero-Crespo9, Federico Gimeno10, Ramon Calviño11, Jose Morell12, Francisco Boso13, Jose Ramoroso14, Juan Bullones15, Jose Fernandez Diaz16, Jose Ruiz Arroyo17, Victor Aragon18, Arsenio Gallardo19, Monica Masotti20
1Hospital Universitario Marques de Valdecilla, Santander, Spain, 2Clinico San Carlos, Madrid, Madrid, Spain, 3H. Puoz, Madrid, Spain, 4H. Virgen de la Victoria, Malaga, Spain, 5HemoLeon, Fundación Investigación Sanitaria en León, Leon, Leon, 6OCTUBRE, MADRID, NY, 7H. Vall de Hebron, Barcelona, Spain, 8H. de Bellvitge, Barcelona, Spain, 9H Gregory Maraño, Madrid, Spain, 10Hospital Universitario de la Princesa, Madrid, Spain, 11H. Clinico Valladolid, Valladolid, Spain, 12H. de la Coruña, La Coruña, Spain, 13H Virgen de la Salud, Toledo, Spain, 14H. Clinico de Tenerife, Santa Cruz de Tenerife, Spain, 15Hospital de Galdakao, Bilbao, Spain, 16H Carlos Haya, Malaga, Spain, 17H Puert de Hierro, Madrid, Spain, 18H Lecamo Blesa, Zaragoza, Spain, 19H de Jaen, Jaen, Spain, 20HAlbacete, Albacete, Spain, 21Clinic Barcelona, Barcelona, Spain

Background: Percutaneous revascularization of left main lesions with drug eluting stent (DES) is an alternative to surgery in high risk patients and in those cases with no high Syntax scores. Whether the use of IVUS during the procedure adds a clinical benefit remains unclear. There is only one single study with some limitations that supports this statement. Therefore we sought to investigate the clinical impact of the use of IVUS in this setting.

Methods: From a retrospective multicenter study that compared different drug-eluting stents in the setting of left main disease we have analyzed the clinical impact of the use of IVUS. Consecutive patients from 21 different hospitals with left main lesions treated with DES were included. A systematic follow up was performed. The clinical outcomes were analyzed depending on the use of IVUS during the procedure.

Results: A total of 770 patients were included. IVUS was used in 233 cases (30.2%). After a three years follow up period the use of two stents, age, diabetes and acute coronary syndrome were found independent predictors of events in the global group after a Cox analysis. In the subgroup of 409 (53.1%) patients with distal left main lesion the independent predictors were the use of two stents, age, diabetes and the use of IVUS, being the latter a protective predictor (HR 0.5, IC 95% 0.23-0.99, p=0.04). In this distal lesion subgroup the survival free from death, myocardial infarction and revascularization after three years was 95% in the 102 patients with IVUS guidance and 77.5% in the 307 patients without IVUS (p=0.001). The analysis of the 108 patients with two stents implanted in distal left main shows a survival free from events of 86.7% in the IVUS guided group (27 patients) and 67.3% in the non-IVUS guided group (81 patients). (p=0.06).

Conclusions: The results of this multicenter registry suggest a clinical benefit derived from IVUS-guided PCI in distal left main lesions.

TCT-66
Impact of Residential Chronic Total Occlusion of Right Coronary Artery on the Long Term Outcome in Patients treated for Unprotected Left Main Disease: The Milan and New-Tokyo (MITO) Registry
Kensuke Takagi1, Afonso Ielas2, Alaiide Chieió3, Sandeep Basavarajiah4, Aazem Latib5, Cosmo Godino6, Santo Ferrarello7, Ahmed Reç8, Tasuku Hasegawa9, Chiara Bernello9, Filippo Figini10, Koji Hozawa10, Naoyuki Kurita11, Satoko Tahara11, Mauro Carlino11, Matteo Montorfano11, Shotoro Nakamura12, Sanao Nakamura12, Antonio Colombo13
1New Tokyo Hospital, Japan, Matsudo, Japan, 2San Raffael Scientific Institute, Milan, Italy, 3Milan, Italy, 4San Raffael Scientific Institute, Milan, Italy, 5Department of cardiology, AIN Samuel University, Cairo, Egypt, Cairo, Egypt, 6San Raffael scientific institute, Milano, Milano, 7New Tokyo Hospital, Matsudo, Chiba, 8New Tokyo Hospital, Chiba, Japan, 9EMO GVM Centro Cuore Columbus srl, Milan, Italy

Background: The presence of right coronary artery occlusion (CTO-RCA) in patients undergoing percutaneous interventions (PCI) for unprotected left main disease (ULM) may affect the prognosis. In this study we evaluated the immediate results and follow-up of patients with ULM-PCI and with or without associated CTO-RCA.

Methods: Between March 2002 and December 2008, 568 consecutive patients with ULM stenosis treated with drug-eluting stent were included in this analysis.

Results: The mean EuroScore and SYNTAX scores were 4.0±2.62 and 28.12±10.82 respectively. Of these, 522 had ULM lesions without residual CTO-RCA (493 ULM without CTO-RCA + 29 ULM with treated CTO-RCA) and 46 patients had residual CTO-RCA. At 1466 days (IQR: 1150-1917) follow-up, the cardiac-death occurred in 41 (7.2%) patients. Cardiac-death was more frequently observed in patients with ULM and residual CTO-RCA as compared to those without residual CTO-RCA (adjusted HR 2.277 [CI 1.190-4.355], p=0.031). However, TLR occurred less frequently in patients with residual CTO-RCA (unadjusted HR 0.424 [CI 0.173-1.040], p=0.061), resulting in the similar MACE rates between the 2 groups. When we analyzed patients with concomitant ULM and CTO-RCA, cardiac-death was significantly higher in patients with residual as compared to treated CTO-RCA (log-rank p= 0.011) despite no difference in baseline characteristics.

Conclusions: Cardiac-death occurred more frequently in patients with residual CTO-RCA as compared to those without residual CTO-RCA. These findings suggest that recanalization of CTO-RCA has significant impact on the long-term cardiac-mortality in patients undergoing ULM-PCI probably by offering reserve coronary circulation, if ISR were to occur in the treated LM.