

CONCLUSION Late follow-up of the EXPERT CTO trial demonstrates durable outcomes related to the CTO target lesion with modest interval progression in TLR and no very late ST. These results confirm sustained long-term safety and efficacy of EES for CTO revascularization.

CATEGORIES CORONARY: Complex and Higher Risk Procedures for Indicated Patients (CHIP)

TCT-261

One-year outcomes of the hybrid CTO revascularization strategy: a sub-analysis of the multicenter RECHARGE Registr



Joren Maeremans,¹ Alexandre Avran,² Simon Walsh,³ Paul Knaepen,⁴ Benjamin Faurie,⁵ Pierfrancesco Agostoni,⁶ Erwan Bressollette,⁷ Dave Smith,⁸ Margaret McEntegart,⁹ William Smith,¹⁰ Alun Harcombe,¹⁰ John Irving,¹¹ James Spratt,¹² Joseph Dens¹³
¹Universiteit Hasselt, Genk, Belgium; ²Arnault Tzanck Institut, Saint Laurent du Var, France; ³Belfast Health & Social Care Trust, Belfast, United Kingdom; ⁴VU University Medical Center, Amsterdam, Netherlands; ⁵Ctr Hosp Mutualiste de Grenoble, Grenoble, France; ⁶Department of Cardiology, St. Antonius Ziekenhuis, Nieuwegein, Netherlands; ⁷Nouvelles Cliniques Nantaises, Nantes, United States; ⁸Morrison Hospital, Swansea, United Kingdom; ⁹Golden Jubilee National Hospital, Glasgow, Scotland, United Kingdom; ¹⁰Nottingham University Hospitals, Nottingham, United Kingdom; ¹¹Nhs, Dundee, United Kingdom; ¹²St George's University Hospital, London, United Kingdom; ¹³Ziekenhuis Oost Limburg, Genk, Belgium

BACKGROUND Percutaneous coronary intervention (PCI) of chronic total occlusions (CTO) has historically been associated with higher event rates during follow-up (FU). The hybrid algorithm and contemporary antegrade and retrograde wiring and dissection re-entry (DR) techniques have the potential to further improve the long-term outcomes after CTO-PCI. The Registry of CrossBoss and Hybrid procedures in France, the Netherlands, Belgium and United Kingdom (RECHARGE) aims to assess the long-term clinical outcomes of the hybrid practice, when applied by operators with varying experience levels.

METHODS Between January 2014 and October 2015, 1165 patients were prospectively included by 17 centers. We examined the one-year clinical events according to technical outcome and final technique. The primary endpoint was major adverse cardiac events (MACE).

RESULTS ≥90% complete FU data up to 12 months of 1067 patients (92%; n=1067/1165) was provided by 13 centers. Mean FU duration was 362.8±0.9 days. One-year MACE-free survival was 91.3% (n=974/1067). MACE included death (1.9%; n=20), myocardial infarction (1.4%; n=15), target vessel failure (TVF) (5.9%; n=63), and target vessel revascularization (TVR) (5.5%; n=59). In two patients, TVF led to a myocardial infarction. In five patients, TVF was caused by an in-stent occlusion. Non-TVr was performed in 6.7% (n=71). Non-TVr via PCI was performed for the treatment of a second CTO lesion in 27% (n=19/71). The composite MACE endpoint was significantly in favor of successful CTO-PCI (8.0% vs. 13%; p=0.035), even after adjusting for baseline differences (adjusted hazard ratio=0.59; 95%CI 0.36-0.98; p=0.041). No differences in MACE or MACE components were observed according to technical outcome and final applied technique (DR vs. non-DR techniques).

CONCLUSION The use of the hybrid algorithm and contemporary techniques by moderate to highly experienced operators for CTO treatment is safe and is associated with a low one-year event rate. Successful procedures are associated with better a MACE rate. DR techniques can be used as first-line strategies alongside intimal wiring techniques.

CATEGORIES CORONARY: PCI Outcomes

TCT-262

Differential Prognostic Effect of Revascularization Between Chronic Total Occlusion with Left Ventricular Systolic Dysfunction and without that



Cheol Woong Yu,¹ Duck Hyun Jang,² Je Sang Kim,³ Seung Hun Lee,⁴ Jae Hyoung Park,² Rak Kyeong Choi,⁵ Young Jin Choi,⁶ Jin Sik Park,⁷ Hyung Joon Joo,² Jeong Hoon Yang,⁸ Joo Yong Hahn,⁹ Seung Hyuk Choi,⁸ Hyeon Cheol Gwon,⁸ Do Sun Lim²
¹Korean University Anam Hospital, Seoul, Korea, Republic of; ²Korea University Anam Hospital, Seoul, Korea, Republic of; ³Sejong Hospital, Bucheon, Gyeonggi, Korea, Republic of; ⁴Anam Hospital, Korea University Medical Center, Seoul, Korea, Republic of; ⁵Sejong general hospital, Kyunggi-do, Korea, Republic of; ⁶Sejong General Hospital, Bucheon, Korea, Republic of; ⁷Mediplex Sejong General Hospital,

Incheon, Korea, Republic of; ⁸Samsung Medical Center, Seoul, Korea, Republic of; ⁹Interventional Cardiologist, Seoul, Korea, Republic of

BACKGROUND Revascularization of chronic total occlusion in coronary artery is known to be associated with symptomatic improvement and long-term survival benefit. However, there has been a paucity of data about survival benefit of revascularization of chronic total occlusion in coronary artery according to existence of Left ventricular systolic dysfunction.

METHODS The patient pooled analysis was performed with 2173 patients with chronic total occlusion in coronary artery undergoing only medical therapy or revascularization from 3 Korean centers registry. The 8-year clinical outcomes were compared between non-revascularization (n=832) and revascularization (n=1341), stratified by existence of Left ventricular systolic dysfunction. The primary endpoint was a composite of all death or any myocardial infarction.

RESULTS In chronic total occlusion with Left ventricular systolic dysfunction or without, the primary endpoint at 8 years were significantly higher in non-revascularization than revascularization (with LVSD 36.1% vs. 20.6%, p < 0.0001; without LVSD 13.3% vs. 5.7%, p < 0.0001), which was mainly driven by reduction of death. This effects of revascularization on the prognosis according to the existence of LVSD were also corroborated with similar results by the inverse probability weighted model. In this model, the fitting cox proportional hazard analysis showed revascularization of CTO was the stronger independent predictor for survival benefit in CTO with LVSD (hazard ratio: 2.160; 95% confidence interval: 1.667 to 2.801; p < 0.001) than without LVSD (hazard ratio: 1.468; 95% confidence interval: 1.155 to 1.866; p =0.0017).

CONCLUSION Regardless of existence of LVSD, revascularization showed better survival benefit than non-revascularization in CTO. However, the benefit was the greater in the CTO with LVSD than without.

CATEGORIES CORONARY: PCI Outcomes

TAVR COMPLICATIONS

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TCT-263

Quality of Life Outcomes in Transcatheter Aortic Valve Replacement Patients Requiring Pacemaker Implantation



Aishwarya Bhardwaj,¹ Tharmathai Ramanan,¹ Abhishek Sawant,¹ Michael Pham,¹ Everett Sinibaldi,¹ Rosemary Hansen,¹ Shannon Baldo,¹ Gerald Colern,² Hiroko Beck,¹ Vijay Iyer¹
¹State University of New York at Buffalo, Buffalo, New York, United States; ²Kaleida Health, Depew, New York, United States

BACKGROUND Permanent pacemaker (PPM) after Transcatheter Aortic Valve Replacement (TAVR) is associated with worse outcomes and mortality. However, its impact on QoL outcomes remains unknown. We hypothesize that implantation of PPM is associated with similar QoL outcomes after TAVR.

METHODS We included 383 consecutive patients undergoing TAVR from 2012-16 who completed a baseline Kansas City Cardiomyopathy Questionnaire (KCCQ-12) health survey. The clinical, laboratory, angiographic, QoL, mortality and occurrence of poor outcomes (KCCQ-12 score < 45 or KCCQ decrease of ≥ 10 points) were obtained.

RESULTS The mean age was 83 ± 8 years, 51% were males and majority were Caucasians (n = 364, 95%). PPM was implanted in 44 (11.5%) patients post-TAVR. Median duration of follow up was 9 [Interquartile Range: 1,13] months. PPM patients were more likely to have prior conduction disease including RBBB (25% vs. 12%, p=0.02) and PQ interval >250 ms (11% vs. 5%, p=0.07). Median KCCQ-12 scores at 1-month were significantly lower among patients undergoing PPM (84.7 vs. 68.8, p=0.04), but did not differ significantly at 1-year (86.5 vs. 90.6, p=0.5) post-TAVR (**Figure 1A**). Occurrence of poor outcome did not differ significantly among those with or without PPM at 1-month (11% vs. 7%, p=0.39) and 1-year (13% vs. 9%, p=0.45) respectively. However, patients with poor QoL outcomes at 1-month post-TAVR also had significantly worse mortality during follow up in unadjusted (31.3% vs. 4.5%, p<0.001) and adjusted (HR = 5.30, 95%CI: 1.85 - 15.22, p=0.002) analyses respectively (**Figure 1B**).