

and 3 year OCT imaging reveals the “golden tube” indicating complete resorption of the scaffold. Clinical events remained low (MACE = 5.7%, 7.4%, 8.2% and 9.0% at 12, 24, 36, 48 months respectively) with no reports of definite scaffold thrombosis.

CONCLUSION DESolve demonstrated safety and efficacy with low late lumen loss. Serial imaging indicated early vessel restoration at 6 months. Through 48 months, the clinical event rates remain low. Full imaging data from 6, 18 and 36 months as well as final 5-year clinical results will be presented.

CATEGORIES CORONARY: Bioresorbable Vascular Scaffolds

CHIP: CHRONIC TOTAL OCCLUSION OUTCOMES

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TCT-17

Procedural characteristics, Outcomes and Complications in patients undergoing percutaneous coronary chronic total occlusion angioplasty: Pooled analysis from RECHARGE, Expert JCTO, EURO CTO, PROGRESS and OPEN CTO Registries



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BACKGROUND Recent improvement in clinical skills, technology and hardware has resulted in improved success rates with chronic total occlusion angioplasty. We sought to perform pooled analysis of procedural characteristics, procedural outcomes and complications following contemporary chronic total occlusion angioplasty.

METHODS We conducted pooled analysis of 9500 patients from around the world included in major registries performed by experienced operators. Data on procedural characteristics, procedural success, JCTO score, procedural time, contrast volume usage, in hospital mortality, myocardial infarction and cardiac tamponade was collected.

RESULTS A total of 9500 patients were included from five large registries. Pooled estimates of the baseline and procedural characteristics were as follows: Age 65.4 years (95% confidence interval (CI): 62.9 to 67.8 years); previous CABG 24.8% (95% CI: 12.4 to 37.3 %); reattempt 24.8% (95% CI: 12.4 to 37.3%); JCTO score 2.2 (95% CI: 1.9 TO 2.3). Final wiring strategy in hybrid algorithm based registries RECHARGE, PROGRESS and OPEN CTO was AWE in 40.8-58%, Retrograde in 24-35%, ADR in 16-25% and in Expert JCTO and EURO CTO was AWE in 72-75% and Retrograde in 25-28%. Pooled estimates of the outcomes were: Procedural success 87.8% (95% CI: 85.5% to 89.9%); procedure time 133.1 minutes (95% CI: 109.8 to 156.3 minutes); contrast volume 256.8 ml (95% CI: 229.6 to 283.9 ml), In hospital MACE 2.6 % (95% CI: 1.1 to 4.2%), mortality 0.36% (95% CI: 0.09 to 0.62%), stroke 0.13% (95% CI: 0.04 to 0.21%); MI 1.62% (95% CI: 1.0 to 2.27%) ; Cardiac Tamponade 0.9% (95% CI: 0.50 to 1.29 %).

CONCLUSION Modern chronic total occlusion angioplasty could be performed with high procedural success rates and low complication rates in experienced hands utilizing various techniques.

CATEGORIES CORONARY: PCI Outcomes

TCT-18

Feasibility, safety and outcomes of chronic total occlusion revascularization in end-stage renal disease



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BACKGROUND The feasibility, safety and outcomes of chronic total occlusion (CTO) revascularization in end-stage renal disease (ESRD) are not known.

METHODS We retrospectively compared patients with (n=40) and without ESRD (n=87) who underwent CTO revascularization with complete 1-year follow-up. The primary endpoint was a composite of death, MI and target vessel revascularization (TVR).

RESULTS Patients with ESRD represented a significantly higher risk group, with more females (27% vs 10%, p=0.01) and DM (97% vs 27%, p<0.0001), and history of smoking (65% vs 43%, p=0.004), MI (57% vs 31%, p=0.006), PAD (65% vs 9.3%, p<0.0001), CHF (43% vs 23%, p=0.03) with lower EF (43±14 vs 51± 13, p=0.004). J-CTO scores were similar between groups (ESRD 1.9±0.6 vs non-ESRD 2.0±1.2, p=0.44). CTO-PCI was successful in 83% of ESRD pts vs 86% of non-ESRD pts (p=0.79). One-year clinical outcomes are presented in the table. PCI resulted in a substantial reduction in angina symptoms in both groups. The composite endpoint occurred more frequently in ESRD (HR; 4.0 95% CI 1.6-10.3, p=0.003), driven by each of the individual components including greater death (HR; 5.2 95% CI 1.3-21.0, p=0.01), MI (HR; 10.7 95% CI 2.0- 95.6, p=0.03) and TVR (HR; 4.0 95% CI 0.9-16.6 p=0.05. Readmission for CHF were not significantly different.

1-year Clinical Outcome	ESRD n = 40	Non-ESRD n = 87	P
Angina relief,%	29 (72.5)	74 (85.1)	0.14
Composite endpoint, n, %	12 (30.0)	7 (8.1)	0.003
- All-cause death, n, %	7 (17.5)	3 (3.4)	0.01
- Cardiovascular death, n, %	3 (7.5)	0 (0)	0.03
- Non-cardiac death, n, %	4 (10.0)	3 (3.4)	0.58
- MI, n, %	5 (12.5)	1 (1.2)	0.03
- TVR, n, %	5 (12.5)	3 (3.49)	0.05
Heart failure admission, n, %	2 (5.0)	2 (2.3)	0.57

CONCLUSION CTO PCI in ESRD has high technical success rate and results in significant improvement in anginal symptoms. However, late adverse-events were significantly more common in ESRD, possibly related to the substantially increased baseline risk in these patients.

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

TCT-19

Mid- and long-term outcome of the EXPLORE trial, a Global, Randomized, Prospective, Multicenter Trial Investigating the Impact of Recanalization of a Chronic Total Occlusion in Patients after Primary Percutaneous Coronary Intervention for Acute ST-Elevation Myocardial Infarction



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