

LONG-TERM CLINICAL OUTCOMES AFTER PERCUTANEOUS CORONARY INTERVENTION FOR CHRONIC TOTAL OCCLUSIONS IN PATIENTS WITH AND WITHOUT DIABETES MELLITUS: FIVE-YEAR OUTCOMES FROM A 1,791 PATIENT MULTI-NATIONAL REGISTRY

i2 Oral Contributions

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Background: This study describes the clinical outcomes of patients with and without diabetes mellitus (DM) undergoing percutaneous coronary intervention (PCI) for chronic total occlusions (CTO).

Methods: Between 1998 and 2009, a total of 1791 pts with 1852 CTO underwent PCI at four centers in the US, UK, Italy and South Korea. Time-to-event analyses were performed using Kaplan-Meier statistics and the log-rank statistic was used to test for differences between pts with and without DM.

Results: DM status was known for 1742 (97%) pts, of whom 395 (23%) had DM (42% of which IDDM). Median follow-up duration was 1080 days. Procedural success was similar in pts with vs. without DM (70% vs. 68%, $p=0.53$). Drug-eluting stents were used more often in DM patients (76.2% vs. 61.7%, $p<0.01$). 5-year mortality was greater in pts with vs. without DM in whom CTO PCI failed or was successful (Fig 1A&B). However, successful CTO PCI was associated with reduced mortality in pts with DM, but not in those without DM (figure 1C&D). This was confirmed by multivariate Cox regression analysis (models available on presentation). Five-year rates of MI (7.8% vs. 5.8%, $p=0.41$) and TVR (30.0% vs. 22.5%, $p=0.35$) were comparable in pts with and without DM after CTO PCI.

Conclusion: Pts with and without DM had a similar success rate of CTO PCI and 5-year freedom from subsequent MI and TVR. Successful CTO PCI was associated with reduced long-term mortality only in pts with DM, however, underlining the importance of revascularization in this high risk group.

