Conclusions: Coronary chronic total occlusion in the non culprit artery in patients presenting with STEMI is associated with poor long-term mortality. Prospective randomized studies that examine the impact on clinical outcome of revascularization strategies in this population are indicated.

PS319 | BEDSIDE
No added benefits of percutaneous coronary intervention over medical treatment in patients with chronic total occlusions
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Background: In patients with chronic total occlusions (CTO), it remains unclear which is a superior strategy as an initial management, percutaneous coronary intervention (PCI) or medical treatment, in reducing cardiovascular events.

Methods: Between 1998 and 2008, following exclusion of patients who underwent coronary artery bypass grafting, a total of 820 CTO patients were examined and divided into 2 groups according to an initial management: PCI (n=439) and medical treatment (MED) groups (n=381). We compared clinical events (all-cause death or major adverse cardiac events [MACEs]), defined as a composite of death, myocardial infarction and urgent revascularization) after adjustment for differences in baseline risk factors between the 2 groups.

Results: In PCI group, revascularization was successful in 340 patients (77%). During a median follow-up of 7.2 years (4.4-11.0), the rates of all-cause death and MACEs were higher in MED group as compared with PCI group (31% vs 25% for all-cause death, p=0.001; 33% vs 25% for MACEs, p=0.012). Cardiac mortality and MACE were also higher in patients with CTO (14.7% vs 3.7% OR: 4.42; 95% confidence interval [CI]: 3.18 to 6.15; p<0.0001 and 33.5% vs 20.4% OR: 1.97; 95% confidence interval [CI]: 1.56 to 2.47; p<0.0001 respectively).

Conclusions: Coronary chronic total occlusion in the non culprit artery in patients presenting with STEMI is associated with poor long-term mortality. Prospective randomized studies that examine the impact on clinical outcome of revascularization strategies in this population are indicated.

PS321 | BEDSIDE
Influence of recanalization success on long-term outcome after percutaneous coronary intervention for chronic total coronary occlusions

Purpose: Despite advancements in recanalization technique there is limited data on prognosis after percutaneous coronary intervention (PCI) for chronic total coronary occlusions (CTOs) in the era of drug-eluting stents (DES).

Methods: We evaluated long-term mortality in 1642 consecutive patients who underwent elective PCI of a CTO in our center between 01/2005 and 12/2011. Median follow-up was 3.0 years (interquartile range 1.1–3.8 years). Procedural success was defined as <30% residual diameter stenosis of the CTO lesion after DES implantation. Survival was assessed with unadjusted and adjusted Cox proportional hazard models.

Results: Mean age was 65.8 ± 11 years, 18% were female, 28% diabetics, 17% had a serum creatinine >1.3mg/dl, 11% a prior coronary bypass operation, 24% a previous myocardial infarction and 17% a left ventricular ejection fraction <40%. Procedural success was obtained in 1216 (74.1%) patients with a stent rate of 96.2%. Of the stents implanted 95% were DES. Patients with procedural success compared to failure were younger and had less often a previous coronary bypass operation. After multivariable adjustment procedural success was independently predictive for reduced long-term mortality (adjusted HR 0.56; 95% CI 0.38-0.81; p=0.003). Figure shows adjusted 3-years mortality from any cause.

Conclusion: Successful recanalization of a CTO is an independent predictor for reduced long-term mortality.

PS322 | BENCH
Clinical presentation and predictors of Stent thrombosis after drug-eluting stent implantation for chronic coronary occlusions
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The objective of this study was to evaluate the incidence of stent thrombosis, as well as the clinical presentation and related factors in patients with chronic total occlusion (CTO) treated with drug-eluting stents.

Methods: The CIBELES (Chronic coronary occlusion treated By Everolimus Eluting Stent) trial allocated 207 patients with CTO to everolimus or sirolimus stent in 13 centers from Spain and Portugal. Stent thrombosis episodes according to the Academic and Research Consortium (ARC) criteria were codified through a 12-month period.

Results: During a 12 month follow-up, 3 episodes of definite or probable stent thrombosis were diagnosed: 2 definitive thrombosis (1 and 117 days after the procedure) and 1 probable stent thrombosis (9 days after the procedure). Therefore, the incidence of definite or probable stent thrombosis at 1 year was 1.4% (early stent thrombosis 0.9%, late stent thrombosis 0.5%). No death or Q-wave myocardial infarction occurred in these patients (clinical presentation was non-Q-wave acute myocardial infarction in 2, and unstable angina in 1 case). At univariate analysis, the risk of stent thrombosis was higher with left anterior descending coronary artery as treated vessel (3.5% vs 0.0%, p=0.037), single vessel disease (3.3% vs 0.0%, p=0.049), and treatment with sirolimus-eluting stent (3.0% vs 0.0% in patients treated with everolimus-eluting stent, p=0.074). Patients with stent thrombosis had lower minimum lumen diameter (1.3±0.6 mm vs 2.6±0.5 mm, p<0.001), and higher % stenosis immediately after the procedure (43±14% vs 20±10%, p<0.001). At multivariate analysis, the only independent predictor of stent thrombosis was the minimum lumen diameter after the procedure.

Conclusions: Incidence of definite or probable stent thrombosis after drug-eluting stent implantation in CTO is low (1.5%), especially in patients treated with