

CONCLUSION In this large retrospective analysis of patients undergoing TEER with the MitraClip system, the presence of at least moderate pre-procedural TR was associated with worse symptoms at 30 days and increased mortality at 1 year.

CATEGORIES STRUCTURAL: Valvular Disease: Mitral

TCT-108

Abstract Withdrawn



TCT-109

Ten-Year All-Cause Death After Percutaneous or Surgical Revascularization in Diabetic Patients With Complex Coronary Artery Disease



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BACKGROUND Randomized trials have shown that coronary artery bypass graft surgery (CABG) is superior to percutaneous coronary intervention (PCI) in patients with diabetes and multivessel disease in terms of patient-oriented composite endpoints. However, whether CABG results in an improved survival in the very long term, compared

with PCI with drug-eluting stents (DES) in patients with diabetes and complex coronary disease remains to be ascertained.

METHODS The SYNTAXES study evaluated up to 10-year survival of 1,800 patients with the 3-vessel disease (3VD) or left main coronary artery disease (LMCAD), randomized to receive either PCI or CABG in the SYNTAX trial. Ten-year all-cause death according to diabetic status and revascularization strategy was examined.

RESULTS In patients with diabetes ($n = 452$), the risk of mortality was numerically higher with PCI compared with CABG at 5 years (19.6% vs 13.3%; hazard ratio [HR]: 1.53; 95% confidence interval [CI]: 0.96, 2.43; $P = 0.075$), with the opposite seen between 5 to 10 years (PCI vs CABG: 20.8% vs 24.4%; HR: 0.82; 95% CI: 0.52, 1.27; $P = 0.366$). Irrespective of diabetic status, there was no significant difference in all-cause death at 10 years between patients receiving PCI or CABG; the absolute treatment difference was 1.9% in patients with diabetes (PCI vs CABG: 36.4% vs 34.5%, difference: 1.9%; 95% CI: -7.6%, 11.1%; $P = 0.551$). Among insulin-treated patients ($n = 182$), all-cause death at 10 years was numerically higher with PCI (47.9% vs 39.6%, difference: 8.2%; 95% CI: -6.5%, 22.5%; $P = 0.227$).

CONCLUSION The treatment effects of PCI versus CABG on all-cause death at 10 years in patients with 3VD or LMCAD were similar irrespective of the presence of diabetes. There may, however, be a survival benefit with CABG in patients with insulin-treated diabetes. The association between revascularization strategy and very long-term ischemic and safety outcomes for patients with diabetes needs further investigation in dedicated trials.

CATEGORIES OTHER: Diabetes, Lipid Disorders, and Risk-Factor Management

TCT-110

Fifteen-Year Trends in the Rates of Elective Percutaneous Coronary Intervention and Impact of COURAGE and ORBITA Trials: Insights From British Cardiovascular Intervention Society Dataset



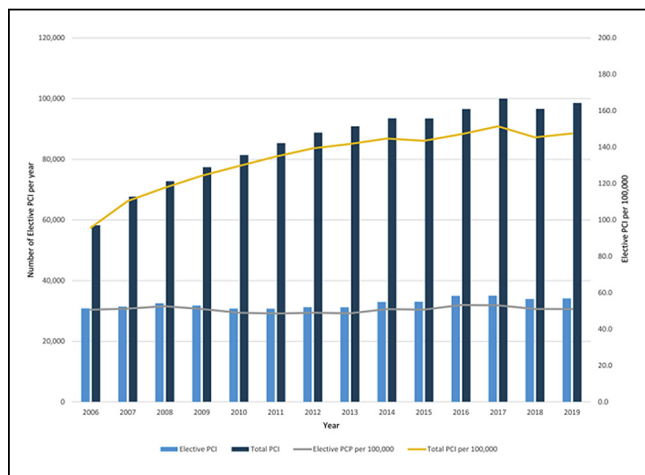
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BACKGROUND This study was designed to evaluate temporal trends in elective rates of percutaneous coronary intervention (PCI) for stable angina and, specifically, to study the impact of the COURAGE and ORBITA trials on real-life practice.

METHODS We analyzed a large, longitudinal PCI cohort containing more than 1.2 million patients undergoing PCI for stable angina between January 2006 and December 2019. Patient demographics, procedural details, and clinical outcome data were analyzed, and temporal trends in the proportion of PCI for stable angina were compared before and after the publication of COURAGE and ORBITA trials, respectively.

RESULTS Out of 1,297,919 PCI procedures, 430,248 (33.1%) were for stable angina. The number of elective PCI procedures per year (30,823 in 2006 to 34,103 in 2019) and per 100,000 population estimates (50.7% in 2006 to 51.1% in 2019) remained stable (Fig. 1). The proportion of patients undergoing elective PCI without angina almost doubled from 5.1% to 9.7%. The rates of PCI remained stable after the publication of the COURAGE trial (46.5% to 44.7%) and the ORBITA trial (35.3% to 35.1%). Subgroup analysis of ORBITA participating centers showed similar stable trends in clinical and procedural profiles before and after the publication of the ORBITA trial.



CONCLUSION In this nationwide analysis, rates of elective PCI for stable angina have remained stable over a 15-year period in England and Wales. Publication of COURAGE and ORBITA trials had no impact on elective PCI activity or the clinical profile of patients undergoing PCI for stable angina.

CATEGORIES OTHER: Quality, Guidelines, Appropriateness Criteria, Cost Effectiveness, and Public Health Issues

TCT-111

Comparison Between a Novel Sirolimus-Eluting Bioresorbable Scaffold With Everolimus-Eluting Metallic Stent in Patients With Coronary Artery Disease: Three-Year Follow-Up From the NeoVas RCT Study



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BACKGROUND Previous trials and meta-analyses have demonstrated that risk of adverse clinical events, especially stent thrombosis and target-vessel myocardial infarction, may be increased within the first 3 years after coronary artery implantation of poly-l-lactic acid (PLLA)-based bioresorbable scaffolds (BRS). We sought to evaluate the 3-year clinical outcomes of the novel NeoVas BRS in a randomized comparison with cobalt chromium everolimus-eluting stents (CoCr-EES).

METHODS A total of 560 patients with a single de novo native coronary artery lesion with reference vessel diameter 2.5 to 3.75 mm and lesion length ≤ 20 mm were randomized 1:1 to NeoVas BRS versus CoCr-EES. Optical coherence tomography (OCT) and fractional flow reserve (FFR) were both performed in a pre-specified subgroup at 3-year follow-up. Clinical outcomes were analyzed by intention to treat through 3 years.

RESULTS The 3-year target lesion failure (TLF) rate was 6.9% in the NeoVas group and 6.1% in the CoCr-EES group (hazard ratio [HR]: 1.13; 95% confidence interval [CI]: 0.59 to 2.18; P = 0.71). The rate of definite or probable stent thrombosis was also similar between the NeoVas and CoCr-EES groups (1.1% vs 0.7% respectively; HR: 1.51; 95% CI: 0.26 to 8.73; P = 0.64). OCT demonstrated that NeoVas was largely absorbed (72.3% ± 13.2%) at 3 years, and the relative change of mean lumen diameter before and after intracoronary injection of nitrates

was superior with NeoVas compared with CoCr-EES (3.2% ± 3.0% vs 2.0% ± 2.6%, P = 0.03).

CONCLUSION At 3-year follow-up from the current randomized trial, TLF and stent thrombosis rates were comparable after NeoVas BRS and CoCr-EES implantation in noncomplex lesions. NeoVas struts were largely absorbed at this time point, and restoration of vasomotor function was evident. Further studies, including longer-term follow-up, are warranted to evaluate the safety and effectiveness of the NeoVas BRS.

CATEGORIES CORONARY: Stents: Bioresorbable Vascular Scaffolds

TCT-112

Repeat Revascularization Impact on 10-Year Survival After PCI or CABG: Post Hoc Analysis of the SYNTAXES Trial



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BACKGROUND Higher rates of repeat revascularization after percutaneous coronary intervention (PCI) than coronary artery bypass graft (CABG) have been described in 3-vessel (3VD) or left main (LM) disease, with a negative influence on outcomes up to 5 years. The impact of repeat revascularization on very long-term outcomes remains unclear. This study aims to investigate the impact on 10-year all-cause death of repeat revascularizations in patients with 3VD or LM.

METHODS The SYNTAXES study evaluated the vital status out to 10 years of patients with 3VD or LMCAD (or both) enrolled in the SYNTAX trial. Effects of repeat revascularizations occurred within 5 years on 10-year all-cause death were investigated through time-dependent Cox-regression analysis.

RESULTS During the first 5 years, 330 of 1,800 patients (18.3%) underwent a minimum of 1 repeat revascularization, for a total of 459 repeat revascularization procedures, mostly consisting of repeat-PCI (393, 85.6%). Repeat revascularizations were more frequent among patients initially randomized to PCI (hazard ratio [HR]: 2.3; 95% confidence interval [CI]: 1.8-3.0; P < 0.0001). At 10 years, all-cause death was comparable between patients who underwent any repeat revascularization and those who did not (27.6% vs 25.1%; adjusted HR: 2.3, 95% CI: 0.8-6.2; P = 0.11). However, among patients requiring repeat revascularizations, who underwent initial PCI versus initial CABG, presented a significantly higher 10-year all-cause death (32.7% vs 17.3%, P = 0.004). The adjusted risk for 10-year all-cause death according to the subtypes of repeat revascularizations revealed that only revascularization with CABG was an independent predictor (HR: 6.2; 95% CI: 1.5-25.2; P = 0.011).

CONCLUSION In the SYNTAX trial, repeat revascularizations were more frequent after initial PCI. Although no difference on 10-year all-cause death was observed between patients who did undergo repeat revascularizations and those who did not, higher death rates were reported among those required any repeat procedures after initial PCI or revascularization with CABG. These exploratory findings should be investigated with larger populations in future studies.

CATEGORIES CORONARY: Stents: Drug-Eluting

TCT-113

Ten-Year Survival Benefit and Appropriateness of Surgical or Percutaneous Revascularization Based on Individual Predicted All-Cause Mortality in Patients With Complex Coronary Artery Disease



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