TCT-50
Angiographic Predictor of 2-Year Stent Thrombosis in Patients Receiving Drug-eluting Stents: Insights from the ADAPT-DES Study
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Background: A strong relationship between platelet reactivity and stent thrombosis (ST) after DES implantation was recently confirmed in the prospective, multicenter ADAPT-DES study. We herein seek to identify the angiographic predictors of 2-year ST from this large-scale study.

Methods: Angiographic analyses were performed by an independent angiographic core laboratory for all ST thromboses. According to a pre-specified sub-study, propensity-adjusted multivariable analysis was performed to determine angiographic predictors of 2-year ST.

Results: Among the 8,583 patients included in the ADAPT-DES study, 92 (1.1%) pts had ST at 2 year of follow-up. Target lesion-related ST were identified in 77 pts (82 lesions) and clinically matched with 153 pts (196 lesions) without ST. Pts with ST were more likely to have three-vessel disease, longer target lesions, more lesions containing thrombus, moderate-to-severe calcification, ACC/AHA type C class, total occlusions, and in saphenous vein grafts. After propensity-adjusted multivariable analysis, ACC/AHA type C lesion (HR [95%C] = 1.73 [1.05, 2.86], p=0.03), the presence of a total occlusion (HR [95%C] = 1.39 [1.10, 1.76], p=0.005), and PRU >208 (HR [95%C] = 1.61 [1.01, 2.57], p=0.045) were independent predictors of ST 2 years after DES.

Conclusions: From the large-scale ADAPT-DES study, complex lesion (type C) and total occlusions remain strong angiographic predictors of 2-year ST in the DES era.

TCT-51
Prognostic impact of chronic total occlusion in patients with different severity of coronary artery disease - A report from the Swedish Coronary Angiography and Angioplasty Registry
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Background: Chronic total coronary occlusion (CTO) is a frequent finding in patients with ischemic heart disease. Our aim was to evaluate the prognostic impact of CTO on long-term survival in patients with different severity of ischemic heart disease at the level of one whole nation.

Methods: The study population included all consecutive patients registered in the SCAAR registry (Swedish Coronary Angiography and Angioplasty Registry) from 2005 to 2012 who underwent angiography or PCI in Sweden. Patients with previous coronary artery bypass graft surgery were excluded. The patients with CTO and without CTO (no-CTO) were compared using Cox proportional-hazards regression adjusted for the following covariates: age, indication, extent of coronary artery disease, smoking, hypertension, hyperlipidemia, diabetes, year of intervention, prior infarction, prior PCI, hospital and complications. Interaction test was performed between the presence CTO and the different severity of ischemic heart disease e.g. one-vessel disease (1VD), two-vessel disease (2VD), three-vessel disease (3VD) and left main (LM).

Results: The total of 91,154 patients were included in the study of which 14,609 had a CTO. Median follow-up was 3 years. The total number of events was 9084. CTO was an independent predictor of mortality (HR 1.29; 95%CI 1.22-1.37; P<0.001). There was no interaction between the presence of CTO and severity of ischemic heart disease (P=0.32) signifying that CTO is of equal negative prognostic importance in all subgroups. Compared to 1VD, the mortality risk was higher in 2VD (HR 1.17; 95%CI 1.11-1.24; P<0.001), 3VD (HR 1.47; 95%CI 1.38-1.58; P<0.001) and LM (HR 1.87; 95%CI 1.72-2.02; P<0.001).

Conclusions: Our study is based on the largest CTO cohort so far. The presence of CTO confers worsening long-term survival in all subsets of coronary artery disease.

TCT-52
Difference in the Frequency of procedural complications related to percutaneous coronary intervention of chronic total occlusions between via retrograde approach vs. via antegrade approach. -A Toyohashi Experience-
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Background: Despite recent high success rates owing to the development of new strategies such as the retrograde approach, the procedural complications and their management related percutaneous coronary intervention (PCI) of chronic total occlusions (CTOs) have not been fully evaluated.

Methods: The aim of this study was to investigate in-hospital outcomes and compare the frequency of the complications between via the retrograde approach vs. via antegrade approach. The complications included major adverse cardiac and cerebrovascular events (MACCE) (defined as death, myocardial infarction [MI], emergent coronary bypass surgery, repeat PCI, or stroke), bleeding of clinical significance, and procedural complications such as acute or sub-acute occlusion, distal embolization, coronary dissection, and coronary perforation.

Results: Of 1,014 CTOs in 943 patients who underwent PCI between 2005 and 2010, 278 CTOs (27.6%) were attempted using the retrograde approach. The overall procedural success rate was 92.4% (937/1014). The complication was the second reason for suspended PCI procedure (7.8%; 67/7). No significant difference was observed in the frequency of the complications between antegrade approach and retrograde approach except the frequency of coronary perforation that was higher in the patients treated with retrograde approach. (Table).

Conclusions: Although the higher rate of coronary perforation in the patients treated with retrograde approach, all cases were solved with optimal treatments in the cath-lab and in-hospital MACCE was acceptable. Retrograde approach could be one of the option for the failed case wi.

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Abstract Withdrawn