imbalance between trials confirmed non-significant differences between stent type and stent thrombosis rates. The trend for a higher definitive stent thrombosis rate in the BES group was by multivariate analysis least prominent (HR 2.05 [95% CI 0.75-5.60]; p=0.16).

Conclusions: At 1-year follow-up the biodegradable polymer-coated BES has similar stent thrombosis rates as the durable polymer-coated ELS. However, incidence of definite stent thrombosis is numerically higher in the BES group without reaching statistical significance. Longer follow-up is needed to determine the safety profile of biodegradable polymer-coated BES in real world clinical practice.

TCT-646
IVUS findings and clinical outcomes of angiographic late and very late definite stent thrombosis treated with additional stent implantation versus balloon angioplasty

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Background: Incidence of late stent thrombosis (ST) is increasing due to the persistent risk of thrombosis after implantation. Most of the cases are treated with percutaneous coronary intervention (PCI). PCI of late-ST with additional stent implantation has been associated with worse outcomes. Intravascular ultrasound (IVUS) imaging is able to assess the pathological causes of late-ST and guide the best treatment. The objectives of this study are to describe the IVUS findings of late-ST and compare outcomes between patients treated without and with additional implantation.

Methods: All patients with late-ST (>1 month) undergoing IVUS-guided PCI were included in 7 Spanish institutions. The operators were left to decide the PCI treatment: balloon angioplasty (POBA) vs. stent implantation. Four IVUS findings were assessed: late incomplete stent apposition (LISA), aneurysm, stent underexpansion and excessive neointimal proliferation.

Results: 117 patients were included (54.4% drug-eluting stents). The median time after implantation was 3.5 years. ST was presented as ST-elevation myocardial infarction in 99 (84.1%) patients. Additional stent implantation was used in 54 patients (46.2%). Prior to intervention, there were no differences in LISA (71.4% vs. 63.0%; p=0.33), aneurysm (11.1% vs. 11.1%; p=0.10), underexpansion (31.7% vs. 18.5%; p=0.10) or excessive neointimal proliferation (11.1% vs. 22.2%; p=0.10) between patients treated with POBA vs. additional stent implantation. After PCI persistent LISA was observed in 25.4% vs. 51.9% of patients (p=0.01), respectively. Persistent underexpansion was observed in 6.3% and 14.8% (p=0.05). Follow-up was obtained at 2.0 years. Cardiac death was observed in 3.4% vs. 5.8% of patients treated without and with additional stent (p=0.55). Definite or probable re-occlusion was observed in 1.7% vs. 7.7% (p=0.13), respectively.

Conclusions: The most frequent IVUS findings of late-ST are LISA and under-expansion. POBA seems to improve these IVUS-finding with respect to additional stent implantation. IVUS-guided treatment of definite ST is associated with favorable outcomes independently of the use of additional stent implantation.

TCT-647
Predictors of Stent Thrombosis up to 12 Years Follow-up After Drug-Eluting Stent Implantation in Daily Clinical Practice

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Background: Stent thrombosis (ST) has been described as a rare event in current drug-eluting stent (DES) era; however, its occurrence has been associated with high morbimortality, including fatality rates up to 50%. Previous studies have shown ST could be increased in complex subsets; however, the incidence and predictors of ST after DES overtime are still not fully understood.

Methods: A total of 5,408 pts with >8,000 coronary lesions undergoing routine or emergency PCI were prospectively (and consecutively) enrolled in the DESIRE (Drug-Eluting Stent In the Real World) registry at single institution between May 2002 and May/2012 (enrollment ongoing). By protocol, clinical follow-up was performed at 1 and 6 months, and yearly up to 12 years post-index procedure (97%). Stent thrombosis (ST) was defined according to the propositions of the Academic Research Consortium.

Results: Mean age was 65 years, 32% had diabetes, and 16% had clinical presentation of recent myocardial infarction (MI) (<30 days). Overall, patients were treated with approximately 8,500 DES and angiographic success was high (>99%) despite relatively high complexity in the majority of lesions (67% type B2C). Up to 12 years (median follow-up 4 years) cumulative incidence of ST was 2.4%, given that 95.1% of patients were ST-free at 10 years (Kaplan-Meier survival curve). Of the 113 ST reported, 13% occurred up to 30 days, 55 were definite ST (ARC), and >60% occurred 12 months. Independent predictors of ST are shown in the Table.