Conclusions: Serial IVUS analyses suggest that FKB may improve stent apposition without impact on stent expansion and neointimal hyperplasia in bifurcation lesions treated with 1-stent technique.

TCT-690
Safety and Clinical Efficacy of Sideguard® Stent for Treatment of Bifurcation Lesions: Interim Results from the European Sideguard® Bifurcation Registry Study

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Background: The Sideguard® (Cappella) stent is a self-expanding nitinol stent specifically designed with a flaring cap for treatment of bifurcation lesions. Aim of this registry study is to assess the safety and clinical efficacy of this novel stent in treating bifurcation lesions in a real world setting.

Methods: Since June 2010 a dedicated CERF registry has been used to collect data on all patients undergoing PCI with the Sideguard® stent in the 36 participating European centres. Data collected include Patient demographics, PCI procedure and clinical follow-up up to 1 yr. Clinical end point studied includes death, myocardial infarction (MI) and target lesion revascularisation (TLR). Secondary endpoints included procedure time, fluoroscopy time, contrast volume, procedural success and device success. The study is on-going at present.

Results: Mean age was 65±10.6 and 247(77%) were male and 18% were diabetic. Mean main vessel diameter was 3.3±0.44mm, mean side branch (SB) vessel diameter was 2.7±0.35mm and mean SB vessel lesion length was 8.9±5.9 In 12% cases a second DES stent was used in the SB distal to Sideguard® stent. Final kissing balloon was attempted in 52% cases and was successful in all cases. T IMI flow pre-procedure was TIMI 3 in 80% of cases and 99% post-procedure. From the entire cohort there was a 10.6% procedural failure and a 3.7% device failure as defined by the protocol. MACCE was 3.1% of 320, 6.7% of 254 & 11.2% of 107 patients at 30 days, 6 and 12 months respectively. Total stent thrombosis rate was 1.2%.

Conclusions: In this on-going registry study, the data to date shows that Sideguard® stent can be used to treat complex bifurcation lesions successfully with a very low procedural complication. Follow up clinical outcome also remains favorable though more data is required which should be available at the time of presentation.

TCT-691
The Feasibility And Safety Of Balloon Dilation Over The Jailed Wire To Reopen The (sub)Occluded Side Branch During Procedural Stenting

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Background: To evaluate the feasibility and safety of balloon dilation over the jailed wire (BDJW) to re-open (sub) totally occluded side branch during provisional stenting for bifurcation lesions.

Methods: There were 23 bifurcation lesions (4 in right coronary artery, 19 in left anterior artery) in 23 cases with abrupt (sub) total occlusion of side branch (SB) after stent implantation in main branch (MB). The mean age was 63.1 years old (range 51-78) and 77% were male. Mean 10mm proximal to SB ostium were successfully treated compared to all of 18 (100%, P<0.05) pts with that≤10mm. During a short follow-up period (8.2 months, range 2-24), there was no further seriously compromises or repeat revascularization.

Conclusions: BDJW can be used as a bailout technique to facilitate rewiring with a 87% success rate in case of (sub) total SB occlusion during provisional stenting. Stent segment length >10mm proximal to SB ostium was associated with a lower success rate of this technique.

TCT-692
Impact of Treatment Strategy on Clinical Outcomes Differs Between Patients with Left Main and those with Non-Left Main Bifurcation Lesions

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Background: We sought to investigate whether impact of bifurcation technique (1-versus 2-stent techniques) on clinical outcomes differed between patients with left main (LM) bifurcation lesion and those with non-LM bifurcation lesion.

Methods: A total of 2897 patients who received percutaneous coronary intervention for bifurcation lesions were enrolled from 18 centers in Korea between January 2003 and January 2010. Inclusion criteria: 1) coronary bifurcation lesions treated solely with drug-eluting stent and 2) a main vessel diameter of ≥2.5 mm and side branch diameter of ≥2.3 mm. The exclusion criteria were: 1) cardiogenic shock and 2) cardiopulmonary resuscitation before index procedure. Primary outcome was cardiac death or MI. Secondary outcome was target lesion failure (TLF) including cardiac death, myocardial infarction (MI), and target lesion revascularization.

Results: The median follow-up duration was 36 months. Among 2044 patients with non-LM bifurcation lesion, 1618 underwent 1-stent technique and 426 underwent 2-stent technique. The 2-stent group was more likely to have extensive coronary artery stenosis. After propensity-score matching, treatment with 2-stent technique was associated with a higher incidence of TLF (HR 1.59; 95% CI 1.13-2.24; p<0.01), but not of cardiac death (HR 0.95; 95% CI 0.32-2.85; p=0.93) and cardiac death or MI (HR 1.49; 95% CI 0.80-2.80; p=0.21). Among 853 patients with LM bifurcation lesions, 509 underwent 1-stent technique and 344 underwent 2-stent technique. After propensity-score matching, patients with 2-stent technique had a higher incidence of cardiac death (HR 2.66; 95% CI 1.10-6.40; p=0.02), cardiac death or MI (HR 2.31; 95% CI 1.21-4.42; p<0.01) as well as TLF (HR 3.08; 95% CI 2.04-4.64; p<0.01).

Conclusions: Compared with 1-stent technique, 2-stent technique was associated with a higher incidence of cardiac death or MI in patients with LM bifurcation lesion, but not in those with non-LM bifurcation lesion.

Left Main Stenting

Hall D

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