LONG TERM SAFETY AND PROGNOSIS OF ULTRA LONG SIROLIMUS-ELUTING STENT IMPLANTATION

i2 Poster Contributions
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Background: Because of low rate of restenosis, the use of drug-eluting (DES) stent has widely spread even for the complex lesion including diffuse long lesion. However the ultra long DES implantation might associate to high rate of restenosis or stent thrombosis (ST) and bring the poor prognosis. We aimed to investigate the long term safety and prognosis of ultra long Sirolimus-eluting stent (UL-SES) implantation.

Methods: Consecutive 634 patients with 932 lesions that underwent SES implantation were prospectively enrolled. Three years clinical follow-up was completed for all patients. According to total stent length, lesions were divided into UL-SES (>50mm:39 lesions), Long-SES (30 to 50mm:142 lesions) and Short-SES (<30mm:751 lesions). Whole life dual antiplatelet therapy was planed for the Long-SES and UL-SES patients. Target lesion revascularization (TLR), definite ST, myocardial infarction(MI), death during 3 years follow-up among three groups were compared.

Results: Although prevalence of hypertension, diabetes, dyslipidemia and reference vessel diameter before procedure among three groups were similar, significantly higher rate of hemodialysis was observed in L-SES (11.3%) and UL-SES (10.3%) than Short-SES (5.2%)(p=0.0143). Overall TLR, ST, MI and death during 3 years were observed in 56 lesions (6.1%), 13 lesions (1.4%), 17 patients (2.7%) and 19 patients (3.0%) respectively. Hemodialysis and renal insufficiency (e-GFR<40) were significantly associated to overall TLR and death during 3 years of follow-up. Multivariate analysis showed that hemodialysis (OR:5.544,95%CI:1.96-17.02,p=0.0016) was the strongest predictor of overall TLR. TLR for the UL-SES (6 lesions:15.4%) was significantly higher than 4.5% rate (34lesions) of Short-SES (p=0.0026) and similar with the 11.3% (16 lesions) rate of Long-SES (p=0.4858). No differences were observed in incidence of ST, MI, death during 3 years follow-up among three groups.

Conclusions: Ultra long SES implantation under prolonged dual antiplatelet therapy showed acceptable safety profile and prognosis and it can be an acceptable procedure if it is necessary.