

Impact of Everolimus-eluting Stent Length on Outcomes of Percutaneous Coronary Intervention

Background In previous trials, longer drug-eluting stent (DES) length has been associated with adverse clinical events. In current practice, the appearance of ultra long DES led to cover the entire atherosclerotic lesion and the stented length tends to be longer than the lesion length. However, the impact on clinical outcomes of the ultra long everolimus-eluting stent (ULEES) implantation with diffuse long Coronary Lesions is not clearly investigated. We aimed to evaluate the long-term clinical efficacy and safety of ULEES in diffuse lesion versus spot single EES (SSEES) stenting in short lesion.

Methods/Results Consecutive 495 patients (550 lesions) treated with EES between April 2010 and June 2014 were divided into 4 groups according to stent length. The association between stented length and long-term outcomes was analyzed in ordinal categories (<15, 15 to 23, 24 to 28, and >28 mm) and as a continuous variable. The prevalence of diabetes, chronic kidney disease, and the case of off-label stent use were higher in the longest stented quartile than in the other three groups. Initial success rate was similar in four groups. There were no difference in 1-year TLR (1.8% vs. 2.4% vs. 2.2% vs. 3.3%), stent thrombosis (1.0% vs 1.4% vs 1.2% vs 0.9%) and MACE (3.2% vs 3.5% vs 2.8% vs 4.6%) rates between 4 groups.

Conclusions Like a result of the use of spot EES with short lesion, our results suggest that the use of ultra long EES with diffuse long lesion is effective and safe.