10155

A Randomized Comparison of Zotarolimus-Eluting Stent versus Sirolimus-Eluting Stent for Percutaneous Coronary Intervention in Chronic Total Occlusions

[1]The Catholic University of Korea [2]The Catholic University of Korea
Hee-Yeol Kim[1], Ki-Bae Seung[2], Hun-Jun Park[2]

Purpose: Limited data is available on clinical outcomes of Zotarolimus-eluting stent (ZES) for patients with chronic total occlusion (CTO). This study sought to compare the efficacy and safety of ZES versus Sirolimus-eluting stent (SES) for percutaneous coronary intervention in chronic total occlusion. Methods and results: This prospective, multicenter, randomized study was designed to compare ZES (n = 50) and SES implantation (n = 50) for CTO patients. There were no differences between the groups in baseline clinical and angiographic characteristics. Total stent length was also similar (ZES: 44.0±21.8mm vs. SES: 45.1±20.0mm, p=0.79). In-hospital and 1-month major cardiac adverse event (MACE) was not different. 62 (62%) patients (ZES, n=30) had 9-month clinical and angiographic follow-up and included for this interim analysis. Late loss (0.23mm vs. 0.38mm, p=0.17) and percent diameter stenosis (8.9% vs. 16.0%, p=0.01) were higher in ZES group than SES group. During the follow-up period, there was no target lesion or vessel revascularization in both groups. However, two of cardiac death (6.3%) including one of stent thrombosis was developed in SES group. Furthermore, one stent fracture (3.1%) and one tubular aneurysm (3.1%) were developed in SES group. Conclusions: Despite higher late loss and percent diameter stenosis, the use of ZES in CTO results in similar clinical outcomes and is safe with reference to SES.