



ACC-i2 with TCT

FIRST GENERATION VERSUS NEWER GENERATIONS DRUG-ELUTING STENTS IN CHRONIC TOTAL OCCLUSION INTERVENTION

i2 Poster Contributions

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Session Title: Chronic Total Occlusions

Abstract Category: 16. PCI - DES (clinical/outcomes)

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Background: Successful revascularization of chronic total occlusions (CTOs) remains one of the most difficult challenges for interventional cardiologists. Despite of improved long-term outcomes by drug-eluting stents (DES), however, there are limited data regarding outcomes of different DESs following CTO intervention.

Methods: A total 201 patients (pts) who underwent percutaneous coronary intervention (PCI) with DESs for CTOs lesions were enrolled. We compared the angiographic and clinical outcomes of first generation DES [Paclitaxel-eluting stents (Taxus™) and Sirolimus-eluting stents (Cypher™)] to newer generation DESs [Zotarolimus-eluting stents (Endeavor Resolute™) and Everolimus-eluting stents (Promus Element™ or Xience™)].

Results: Baseline clinical characteristics were similar between the two groups except that first generations DESs group had more smokers and dyslipidemia. At index procedure, first generation DESs showed a trend towards longer lesion length, more fluoroscopy time and higher amount of contrast. However, angiographic follow up at six months, there were no significant differences between the two groups. Similar results were found at twelve months clinical follow up (Table).

Conclusions: In the current study, there were no significant differences between first and newer generations DESs at 6 months angiographic & 12 months clinical outcomes following successful CTOs intervention.

Table. Six months angiographic and 12 months clinical outcomes

Variables, n (%)	First generation DESs (n=166 pts)	Newer generation DESs (n=35 pts)	P-value
Angiographic outcome (6 Months):			
Mean Diameter Stenosis (DS), %	26.41±20.9	22.63±23.6	0.284
Binary restenosis	22 (13.9)	7 (11.5)	0.632
Follow up MLD	2.18±0.73	2.25±0.75	0.534
Clinical outcome (12 Months):			
Total death	5 (3.2)	0 (0)	0.498
Cardiac death	1 (0.6)	0 (0)	0.765
Non cardiac death	3 (1.9)	0 (0)	0.602
Myocardial infarction	2 (1.3)	0 (0)	0.671
TLR	18 (11.5)	2 (14.3)	0.753
TVR	22 (14)	2 (14.3)	0.978
All MACE	29 (18.5)	4 (28.60)	0.359
TLR MACE	18 (11.5)	2 (14.3)	0.753
TVR MACE	27 (17.2)	2 (14.3)	0.781