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LONG-TERM (>2 YEARS) FOLLOW-UP RESULTS OF SIROLIMUS- AND PACLITAXEL-ELUTING STENT IN OPTICAL COHERENCE TOMOGRAPHY: COMPARISON TO 9-MONTHS FOLLOW-UP RESULTS: I2 POSTER CONTRIBUTIONS

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Background: Many studies have demonstrated that late thrombosis occurs even more than 1 year after drug-eluting stent (DES) implantation which is related with incomplete neointimal coverage. We aimed to investigate long term (≥ 2 years) results of neointimal coverage following sirolimus-eluting stent (SES) and paclitaxel-eluting stent (PES) implantation using optical coherence tomography (OCT).

Methods: Twenty eight patients with 31 lesions underwent OCT at least 2 years after stent implantation (group 1; 1065 ± 387 days) while, 101 patients with 104 lesions did it in the vicinity of 9 months (group 2; 273 ± 32 days). Neointimal thickness, neointimal coverage and apposition were evaluated in 6396 struts at group 1 and 15629 struts at 9 months after stent implantation.

Results: The number of stents with complete covered struts was not significantly different between two groups (22.6% in group 1 vs. 19.2% in group 2, $p=0.68$). The percentage of uncovered struts and malapposed strut were not significantly different between two groups (Table). According to types of stents, the rate of uncovered strut in group 1 was lower trend in SES compared to that of group 2 while was quite similar in PES between two groups.

Conclusion: Incomplete coverage was still observed in a majority of stents and considerable struts were not covered with neointima even at 2 years after DES implantation. Furthermore, long-term vascular response might be somewhat different by types of DESs.

Total patients	Group 1 (n=31)	Group 2 (n=104)	p value
Mean neointimal thickness (μm)	13.2 \pm 9.4	11.6 \pm 7.7	0.34
Uncovered struts (%)	5.6 \pm 7.5	8.5 \pm 11.6	0.11
Malapposition (%)	0.5 \pm 1.4	1.4 \pm 4.2	0.04
SES	Group 1 (n=19)	Group 2 (n=68)	
Mean neointimal thickness (μm)	11.1 \pm 6.1	8.7 \pm 5.4	0.09
Uncovered struts (%)	6.0 \pm 8.7	10.9 \pm 12.9	0.08
Malapposition (%)	0.6 \pm 1.8	1.7 \pm 4.5	0.08
PES	Group 1 (n=12)	Group 2 (n=36)	
Mean neointimal thickness (μm)	17.1 \pm 12.3	17.1 \pm 8.5	0.62
Uncovered struts (%)	3.7 \pm 3.4	3.9 \pm 6.6	0.37
Malapposition (%)	0.27 \pm 0.46	1.1 \pm 3.5	0.53