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Backgrounds: Despite the development of technology such as drug eluting stent (DES), treatment for in-stent restenosis (ISR) is still important issue to be resolved. In this study, we evaluated whether the outcome of PCI for ISR is different between lesions originally treated with bare metal stent (BMS) and DES. Methods and results: We examined 72 patients and 81 lesions with ISR lesions. Originally, forty-seven lesions were treated with BMS (ori-BMS group) and 34 lesions were treated with DES (ori-DES group). There was no difference in gender and age between the two groups. Pattern of ISR was more severe in ori-BMS than in ori-DES (diffuse/focal, ori-BMS vs ori-DES=70/30% vs 45/55%,  $p=0.028$ ). In ori-BMS group, 39 lesions were treated with DES (29 SES, 10 PES) and 8 lesions were treated with POBA. In ori-DES group, 25 lesions were treated with DES (12 SES, 13 PES) and 9 lesions were treated with POBA. During the follow-up period of 362 days, the target lesion revascularization (TLR) rate was greater in ori-DES group than ori-BMS group (9% vs 32%,  $p=0.006$ ). The TLR rate was similar between ori-BMS and ori-DES in lesions treated with DES (5% vs 16%,  $p=0.15$ ), whereas the TLR rate was significantly greater in ori-DES group than in ori-BMS group among lesions treated with POBA (25% vs 78%,  $p=0.03$ ). Conclusion: Incidence of re-ISR was high in the lesion originally treated with DES compared with lesions originally treated with BMS. Use of DES may be better than POBA for prevention for re-ISR.