

How to use BMS in long diffuse lesions in the DES-era?—Mid-term results of multiple-overlapping stenting by lesion-specific use of BMS—

¹Rakuwakai Kyoto Cardiovascular Intervention Center, Rakuwakai Marutamachi Hospital ²Rakuwakai Kyoto Cardiovascular Intervention Center, Rakuwakai Otowa Hospital

Hiroaki Fujie¹, Ichiro Hamanaka¹, Naofumi Oyamada¹, Madoka Ida¹, Mikiko Mikuri², Atushi Hayashi², Kazuhiko Yamamoto², Kae Fukuyama², Hidenari Matsumoto², Nobuki Takahashi², Taketoshi Yamazaki², Masato Tanabe², Yuji Hiraoka², Kinzo Ueda¹

Background: Many Randomized-Control-Studies have shown that multiple-overlapping DES in long diffuse lesions has greatly improved in reducing restenosis when compared with BMS. We have reported that the lesion-specific stent selection of BMS was acceptably low in restenosis rate, and could be avoidable DES concerning problems. We sought to determine the safety and efficacy of lesion-specific use of BMS in multiple-overlapping stenting with long diffuse lesions. **Methods:** In our facilities, BMS was intentionally used for large-diameter vessel or bend-segment especially in hinge-portion. Consecutive PCI cases for long diffuse lesions (>33mm) (286cases) with 638 stents (DES (n=465), BMS (n=173)) between Feb/2005 to Dec/2008 were retrospectively analyzed. Multiple-overlapping stenting were classified into three-groups: Multiple-DES (DES-only)-group, Multiple-BMS (BMS-only)-group, and Hybrid (DES+BMS)-group. **Results:** There were no significant differences in binary restenosis among all groups (12.9% in Multiple-DES, 17.1% in Multiple-BMS, and 9.7% in Hybrid-group). No stent fracture occurred in Multiple-BMS and Hybrid group, while 1.8% of Multiple-DES-group had fractured (p=n.s.). Clinical follow up during 2 years showed that there were 6-cases (3.3%) of cardiac death in Multiple-DES-group, 1-case (2.3%) in Hybrid group, and there were no MI in all groups. TLR at 6-month was 8.0% in Multiple-DES, 9.4% in Multiple-BMS, and 3.6% in Hybrid-group (p=n.s.). There were 1-case (0.54%) of SAT (defined as ARC definite&probable) occurred in Multiple-DES-group. However, there were no late stent thrombosis in all groups. **Conclusion:** Lesion-specific use of BMS in long lesions could reduce stent fracture rate and stent thrombosis rate, without raising binary restenosis or TLR.