IMPACT OF STENT-IMPLANTED LESION ON TIMING OF STENT THROMBOSIS OCCURRENCE: EVALUATION OF SUBACUTE, LATE, AND VERY LATE STENT THROMBOSIS

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Background: Subacute stent thrombosis (SAT), late stent thrombosis (LST), and very late stent thrombosis (VLST) might have different mechanisms, but the impact of stent-implanted lesions on stent thrombosis (ST) is unclear. We compared the lesion characteristics among SAT, LST, and VLST after drug-eluting stent (DES) and bare-metal stent (BMS) implantations.

Methods: From January 2001 to March 2011, 12077 lesions were treated with DES, and 8802 lesions with BMS, in which we retrospectively reviewed lesion data of those with SAT, LST, and VLST. ST was defined according to the Academic Research Consortium definition.

Results: SAT occurred in 68 lesions (DES: 28 lesions, BMS: 40 lesions), LST in 34 lesions (DES: 12 lesions, BMS: 22 lesions), and VLST in 48 lesions (DES: 29 lesions, BMS: 19 lesions). As shown in the figure, the rate of the left main trunk was higher in SAT than in LST and VLST (SAT: 14.7%, LST: 2.9%, p=0.024; VLST: 0%, p=0.005) and the rate of the left circumflex branch was higher in SAT than in VLST (SAT: 20.6%, VLST: 6.3%, p=0.035). However, the rate of the right coronary artery was higher in VLST than in SAT and LST (VLST: 43.8%, SAT: 17.6%, p=0.003). The rate of each ST lesion in SAT, LST, and VLST were similar between DES and BMS implantations.

Conclusions: It was clear that the rate of ST lesion differed among SAT, LST, and VLST, but was similar between DES and BMS implantations. Our data suggest that the impact of the stent-implanted lesions on ST differs in terms of the timing of ST occurrence.