COMPARISON OF CORONARY ANEURYSM AFTER STENT IMPLANTATION BETWEEN DRUG-ELUTING STENT AND BARE METAL STENT: LONG-TERM CLINICAL AND ANGIOGRAPHIC FOLLOW-UP

i2 Poster Contributions
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Authors: Haruki Eguchi, Kazushige Kadota, Shunsuke Kubo, Masatomo Ozaki, Nobuaki Yamauchi, Mitsuru Yoshino, Koshi Miyake, Noriyuki Ohashi, Yuki Hayakawa, Naoki Saito, Suguru Otsuru, Daiji Hasegawa, Yoshikazu Shigemoto, Seiji Habara, Takeshi Tada, Hiroyuki Tanaka, Takeshi Maruo, Akitoshi Hirono, Shingo Hosogi, Yasushi Fuku, Naoki Oka, Harumi Katoh, Hiroyuki Yamamoto, Tsuyoshi Goto, Kazuaki Mitsudo, Kurashiki Central Hospital, Kurashiki, Japan

Background: Coronary aneurysm (CA) is an angiographic finding in patients after stent implantation. However, differences in the incidence and long-term clinical course of CA between drug-eluting stent (DES) and bare metal stent (BMS) remain unknown.

Methods: We retrospectively analyzed 7852 lesions which had been performed stent implantation from September 2001 to December 2009: sirolimus-eluting stent (SES), 5360 lesions; paclitaxel-eluting stent (PES), 839; zotarolimus-eluting stent (ZES), 353; Bx Velocity stent (Bx), 230; Express2 stent (Ex2), 152; Driver stent (Dri), 918. We defined CA as vessel distention in diameter by 50% or more than reference vessel at follow-up.

Results: The incidence of CA was 0.3% (27/7852) of the lesions: SES, 0.3% (16/5360); PES, 0.4% (13/3393); ZES, 0% (0/353); Bx, 0.4% (1/230); Ex2, 0% (0/152); Dr, 0.6% (6/918). Multivariate analysis revealed that chronic total occlusion significantly related to the occurrence of CA (4.83; 95% confidence interval, 1.96 to 9.77; p=0.001). CA tended to occur in the proximal coronary artery. Stent fracture (SF) occurred in 33% (9/27) of CA. The cumulative restenosis rate was 22% (6/27) and target lesion revascularization rate was 7% (2/27). There was no ARC definite stent thrombosis.

Conclusions: CA occurred in patients after both DES and BMS implantation. However, the incidence of CA was low and not significantly different between the stent types. CA relates to SF and restenosis and tends to occur in the proximal coronary artery.