

Angiographic patterns of In-stent restenosis treated with sirolimus-eluting stents vs, bare metal stents in hemodialysis patients

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**BACKGROUND:** In hemodialysis (HD) patients, the efficacy of sirolimus-eluting stents (SES) has not been established. **METHODS:** This study consisted of 70 HD patients with de novo 155 lesions treated with SES from August 2004 to December 2007. For matched comparison, the control group included 39 HD patients with de novo 74 lesions who underwent bare metal stents (BMS) from August 1999 to December 2005. Angiographic follow-up was performed after 6–12 months. MACE included all-cause death, myocardial infarction and target lesion revascularization. **RESULTS:** As of 3 years, there was no significant difference for mortality between SES and BMS (25.5% vs, 32.3% P=0.19). MACE at 1-year was also similar between the 2 groups (SES 40.3%, BMS 43.2% P=NS). There was no significant difference for TLR between SES and BMS (26.1% vs, 31.6% P=NS). However, of the angiographically restenotic lesions analyzed, diffuse restenosis pattern (defined as >10mm in restenotic length or total occlusion) was significantly frequent in BMS than in SES (SES 23.5%, BMS 61.1% P=0.01). In contrast, focal restenosis pattern (<10mm in length) was frequently observed in SES than in BMS (SES 76.5%, BMS 38.9% P=0.01). **CONCLUSIONS:** In this study, SES did not reduce the TLR rate in comparison with BMS. However, as compared with BMS, SES showed significantly less diffusely restenotic pattern, which may contribute to the very late vessel patency.