

Initial and mid-term outcomes of drug-coated balloon for the treatment of coronary in-stent restenosis

[Purpose] Despite the advances of percutaneous coronary intervention, the therapeutic strategy for in-stent restenosis (ISR) remains inconsistent. Recently, drug-coated balloon (DCB) has proven to be effective for ISR. We sought to examine the initial and mid-term outcomes of DCB for treatment of ISR in our hospital.

[Methods] Between April 2014 and May 2015, we treated 41 patients (44 lesions) with ISR using DCB. Angiography was performed before and after interventions and at 6 months. Quantitative analysis of coronary angiographic images was carried out.

[Result] We performed pre-dilatation with plain old balloon angioplasty for all patients. Procedural success rate was 100%. Angiographic findings are shown in Table. At 6 months, angiographic restenosis rate was 0%.

[Conclusions] Similar to past studies, DCB treatment for ISR was highly effective in our hospital.

Table. Quantitative coronary angiography analysis

Before procedure	
Reference vessel diameter, mm	2.92 ± 0.50
Minimum lumen diameter, mm	0.85 ± 0.52
Diameter stenosis, %	71.5 ± 17.3
Lesion length, mm	12.9 ± 6.45
After procedure	
Reference vessel diameter, mm	3.10 ± 0.50
Minimum lumen diameter, mm	2.40 ± 0.50
Diameter stenosis, %	22.4 ± 10.7
Acute gain, mm	1.56 ± 0.63
Follow up	
Reference vessel diameter, mm	3.17 ± 0.54
Minimum lumen diameter, mm	2.39 ± 0.61
Diameter stenosis, %	25.0 ± 12.1
Late lumen loss, mm	0.19 ± 0.12