

Directional Coronary Atherectomy in Patients With Chronic Total occlusion

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Percutaneous coronary intervention(PCI) for chronic total occlusion(CTO) was associated with very high incidence of restenosis. Intravascular ultrasound studies have showed that plaque burden was one of the important predictors of restenosis after PCI. Because CTO lesions have a large quantity of fibro-calcified plaque, debulking the plaque burden by directional coronary(DCA) may resolve this problem. We evaluated the efficacy of DCA on restenosis in patients with CTO. < Methods> We performed DCA in 15 patients with CTO. All patients have a CTO lesion at the proximal coronary artery with vessel diameter more than 3 mm. There were 13 males and 2 females with a mean age of 64±9 years. Target vessels were 11 LADs, 3 RCAs and 1 LCX. A 6F atherocathter was used in 10 patients, 7F in 4 and 7FG in a patient. Stenting following DCA was performed in 12 patients. <Results> DCA was successfully performed in all patients without any major complications. Quantitative coronary angiography and ultrasound data were shown in the table. Follow-up data were available in 13 of 15 patients(mean;15 months). The incidence of restenosis, reocclusion and target lesion revascularization were 23%,8% and 23%,respectively.<conclusions> Debulking by DCA may be a encouraging method to improve the long-term outcome

In patients with CTO.

QCA	Pre	Post	Follow-up
Reference (mm)		3.12±0.43	2.72±0.28
MLD(mm)	0	2.62±0.93	1.64±0.71
%DS	100	20±11	40±25
QCU	Pre	Post	Follow-up
MLA()	1.33±0.31	7.12±1.85	5.96±2.71
%PA	89.5±5	55±9	65±12

MLD = minimal lumen diameter, %DS = percent diameter stenosis

MLA = minimal lumen area, %PS = percent plaque area