Comparison Between Long Versus Short Chronic Total Occlusion Intervention with Drug-eluting Stents; Six-month Angiographic and 2-years Clinical Outcomes

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Background: Chronic total occlusion (CTO) intervention is still challenging because of the limited procedural success rate and higher target failure. It is not clear whether the angiographic and clinical outcomes of diffuse long CTO can be different with those of short CTO in the drug eluting stent (DES) era. Methods: A total of 235 consecutive patients (pts) underwent CTO intervention were divided into two groups according the CTO lesion length (Diffuse long group, >30mm: n=159 pts, Control group, <30mm: n=76 pts). Six-month angiographic and 24-month clinical outcomes were compared between the two groups. Results: The baseline clinical characteristics were similar between the two groups except prior PTCA was more frequent in diffuse long CTO group whereas bifurcation lesion was more frequent in the control group. In-hospital complications were similar between the two groups except intimal dissection was more frequent in diffuse long CTO group. Both groups had similar angiographic outcomes at 6 months and clinical outcomes up to 2 years except repeat PCI, predominantly target vessel revascularization (TVR) was higher in the diffuse long CTO group (Table). In multivariate analysis, diffuse long CTO was a important predictor for repeat PCI (OR;4.269, CI 1.53-11.9, p=0.006). Conclusion: The safety profile, long-term angiographic and clinical outcomes were similar between the two groups except higher repeat PCI in the diffuse long CTO group despite of DES implantation. Long-term randomized clinical trials with larger study population will be necessary to elucidate the final