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First cannulation 전 동정맥루 협착증의 조기 혈관성형술

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Early Enovascular Treatment of Vascular Access Stenosis before the First Cannulation

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Background: It was reported that of the patency rates of the vascular access such as arteriovenous fistula (AVF) and arteriovenous graft (AVG) in hemodialysis (HD) patients were not high. But the vascular access patency after early endovascular treatment is still undetermined. The aim of this study was to evaluate the patency of vascular access after early endovascular treatment.

Methods: This study was a retrospective single center study that included 89 HD patients who underwent early endovascular treatment after the vascular access creation between June 2004 and December 2012. Early endovascular treatment was defined as endovascular intervention of significant stenosis detected in venography before the first cannulation. Vascular access patency was followed-up for 1 year after percutaneous transluminal angioplasty (PTA).

Results: The mean age was 60.8±14.6 years and 43.8% (n=39) of the patients were male. Diabetes were 62.9% (n=56) of the patients. AVF operation was conducted in 73.0% (n=65) of patients and AVG operation was 27.0% (n=24). In AVF, main stenosis sites were anastomosis site (n=12), swing point (n=35) and mid vein (n=18). Central vein was not included. In AVG, main stenosis sites were venous anastomosis (n=21) and mid vein (n=3). Arterial anastomosis, graft and central vein were not included. 98.9% (n=88) of the patients had immediate radiologic and clinical success. The one patient performed reoperation because of venous rupture during PTA. The primary patency rate for 1 year was 74.2% (n=66/89) and the assisted primary patency rate for 1 year was 92.1% (n=88/89).

Conclusion: This study suggests that early endovascular treatment of stenosis in the vascular access befor the first cannulation is effective. We found that the primary patency rates of AVF and AVG were high. Our results suggest that early endovascular treatment improves primary patency rates of vascular access in HD patients.

Key Words: 동정맥루, 조기 혈관성형술, 혈액투석
Vascular access, Early endovascular treatment, Hemodialysis