

## 혈액투석 환자에서 장기간 혈관접근로 개통의 예측인자로서 초기 혈류속도 측정의 임상적 유용성

가천의대 길병원 내과학교실

김형수 · 박진웅 · 이현희 · 양재석 · 김세중

### Early Vascular Access Blood Flows as a Predictor of Long-term Vascular Access Patency in Incident Hemodialysis Patients

Hyung Soo Kim, Jin-woong Park, Hyun Hee Lee, Jaeseok Yang, Sejoong Kim

Department of Internal Medicine Gachon University of Medicine and Science

Long-term clinical benefits of vascular access blood flow (VABF) measurement in hemodialysis (HD) patients have been controversial. We evaluated whether early VABF may predict long-term vascular access (VA) patency in HD patients. We enrolled 57 patients starting HD with (34 arteriovenous fistulas [AVFs] and 23 arteriovenous grafts [AVGs]). VABFs were measured monthly by the ultrasound dilution technique from active use of VA until the first 24 weeks after the operation of VA. During the 20.4-month observational period, a total of 40 VA events in 23 patients were documented (0.404 events/patient-year). The first VA events included 13 stenoses and 10 thrombotic events. The early averaged VABFs was related to the VA events (lowest quartile, <919 mL/min in AVF or <880 mL/min in AVG: hazard ratio (HR), 2.94; 95% confidence interval [CI], 1.22–7.10). The early averaged VABFs was also related to the VA stenoses (lowest quartile: HR, 3.46; 95% CI, 1.12–10.7). After the adjustment of gender, age, hypertension, diabetes, VA type, and hemoglobin levels, the HRs were also significant. There was no significant relationship between early VABF parameters and the VA thrombosis. We suggest that early VABFs may predict long-term VA patency, and that incident HD patients with low VABFs should be monitored more carefully to predict VA events.

**Key Words** : 혈액투석, 혈류속도, 혈관 개통

Hemodialysis, Blood flow velocity, Vascular patency