

## 동정맥루 생성이 투석시작시기에 미치는 영향

울산의대 서울아산병원 신장내과, 간호부

오지원 · 박진아 · 정진욱 · 김순배

### Arteriovenous Access Creation Delayed Chronic Hemodialysis Initiation

Ji Won Oh, Jina Park, Jin Uk Jeong, Soon Bae Kim

Univ. of Ulsan, Asan Medical Center, Nephrology, Nursing Department

**Aims:** This study evaluated whether arteriovenous access (AVA) creation before hemodialysis affected the rate of decline of renal function.

**Methods:** This was a retrospective, case-control study comparing two groups of 80 patients each. The 'AVA group' underwent AVA creation more than 2 months before chronic hemodialysis (CHD). The 'catheter group' (i.e., the 'control group') commenced CHD through a temporary catheter. The catheter group patients were matched with AVA group patients in terms of age, gender, nature of underlying disease, and the rate of decline in estimated glomerular filtration rate (eGFR) before AVA creation. The zero point (Z point) was defined as the date of AVA creation for AVA patients, or the date on which the same eGFR was attained by each catheter group patient compared with a matched AVA patient. Time-to-dialysis was defined as the interval from the Z point to the date of initiation of dialysis. The rates of change in eGFR before and after the Z point were also measured.

**Results:** The AVA and catheter groups were similar in terms of baseline characteristics. The Z point eGFR (mL/min/1.73m<sup>2</sup>) was 11.4±3.1 in the AVA group and 11.3±3.2 in the catheter group. The eGFR at the time of dialysis was 6.4±2.0 in the AVA group and 6.1±1.9 in the catheter group. The mean dialysis-free time was longer in the AVA than in the catheter group (14.2±9.4 vs. 5.9±4.1 months, p<0.001). Multivariate proportional Cox's hazard modeling showed that the AVA group and the Z point eGFR were each independent predictors of the time to initiation of CHD. The mean changes in eGFR per month ( $\Delta$ eGFR) before the Z point were similar for the two groups. For the AVA group, the mean  $\Delta$ eGFR was lower after the Z-point compared to before (-0.63 vs. -0.21 mL/min/1.73m<sup>2</sup>, p=0.002). For the catheter group, the mean  $\Delta$ eGFR was similar before and after the Z-point (-0.63 vs. -0.67 mL/min/1.73m<sup>2</sup>). The mean  $\Delta$ eGFR after the Z-point was less in the AVA group compared to the catheter group (-0.67 vs. -0.21 mL/min/1.73m<sup>2</sup>, p=0.002).

**Conclusion:** AVA creation appears to retard the rate of decline in eGFR and to defer CHD initiation.

**Key Words:** 동정맥루, 혈액투석  
AVF, Hemodialysis