Purpose: Planned initiation of hemodialysis (HD) is associated with better outcomes than urgent initiation, and arteriovenous native fistulae (AVF) or artiovenous synthetic grafts (AVG) have advantages over central venous catheters (CVC). Although there are reports about initiating patterns of hemodialysis in overseas, there is no report within the country. This study was to identify numbers of patients starting HD urgently and the type of vascular access at initiation of HD.

Methods: A retrospective multi-center survey of medical records was conducted of patients starting HD in eight hospitals of the Catholic University of Korea Medical College from January 2006 to June 2007. Data extracted included information on predialysis care, starting pattern of HD (elective versus urgent), and type of access at initiation of HD and at 6 months after HD. Predialysis care was defined as care in a chronic kidney disease clinic more than 3 months before initiation of HD. Logistic regression was used to identify factors predicting mortality at 6 months after initiation of HD among variables including sex, age, diabetes, cardiovascular disease, and type of access at initiation of HD and at 6 months after initiation.

Results: Five hundred–three patients were included in this study. The proportion of patients who received predialysis care by nephrologists was 42%. At the initiation of HD, 71% of patients started urgently without a preparation of AVF or AVG. Patients who received predialysis care were less likely to start HD urgently than those referred later (64.3% versus 79.7%, p=0.000). At the initiation of HD, 86% of patients used CVC, 11% used AVF, and 3% used AVG. The most common reasons for starting HD with a CVC were patient-related factors. Patients who received predialysis care were more likely to start HD with a permanent access than those referred later (18.9% versus 6.6%, p=0.000). At 6 months after initiation of HD, 72% of patients used AVF, 15% used CVC, and 13% used AVG. The independent risk factor associated with 6 month–mortality was the type of vascular access at 6 months after initiation of HD (hazard ratio 18.7; 95% confidence interval, 6.1 to 57.8).

Conclusions: Although 85% of patients used AVF or AVG at 6 months after initiation of HD, only 14% of patients started HD with a permanent access. Further efforts to improve predialysis care are needed to reduce the use of CVC at initiation of HD.

Key Words: Predialysis care, Type of Vascular Access, Patients Initiating Hemodialysis

Vascular access, Predialysis care, Urgent dialysis