

# KSN 2016 Abstract Submission

## *Dialysis*

KSN2016ABS-1287

### Long-term Outcome of Continuous Ambulatory Peritoneal Dialysis

: Patients on CAPD for Fifteen years or more in a Single Korean Center

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**Background:** Continuous ambulatory peritoneal dialysis (CAPD) is a common renal replacement modality used to treat end-stage renal disease patients. However, the efficiency of using CAPD as a long-term treatment method is still questioned due to problems such as increased mortality and CAPD technique failure. Our aim was to evaluate the outcome and examine the characteristics of patients who had applied CAPD as a long-term dialysis modality.

**Methods:** This study included patients who had initiated CAPD at Yonsei University Health System, Seoul, Korea since 1983. Patients who had been treated with CAPD for more than 15 years were defined as long-term CAPD patients. Patients who maintained CAPD less than 5 years were considered as controls. The patients were followed up until December 2015. The demographic, biochemical and morbidity data of the patients were collected. The patient and technical outcome were also reviewed.

**Results:** Among 1496 patients who had initiated CAPD 87 (5.8%) patients were long-term CAPD patients. The mean age of CAPD commencement of the long-term CAPD patients was  $39 \pm 11.5$  years, 35(40.2%) of the patients were male, and the mean CAPD duration was  $17.1 \pm 2.7$  years. The most common cause of ESRD was unknown origin, 49(56.3%), followed by glomerular disease, 20 (23%) and hypertension, 7 (8%). ESRD was attributed from diabetes in Only 2 (3.4%) patients. Of the long-term CAPD patients, 13 (14.9%) patients died, 55 (63.2%) were transferred to hemodialysis, and 5 (5.7%) received kidney transplantation. Technique failure was the most common cause of CAPD discontinuation in the long-term CAPD patients. The most common cause of technique failure was CAPD catheter related infection and peritonitis. When long-term CAPD patients were compared with controls, patients were significantly younger ( $p < 0.001$ ), and the prevalence of diabetes ( $p < 0.001$ ), hypertension ( $p = 0.002$ ), and coronary artery occlusive disease ( $p < 0.001$ ) were significantly lower at the time of CAPD initiation in the long-term CAPD group compared to control. In addition, more patients in the long-term CAPD group were high transporters compared to controls ( $p < 0.001$ ). Multiple logistic regression analysis revealed that patients without diabetes (OR, 0.018, CI, 0.002-0.168,  $P < 0.001$ ), starting CAPD at a younger age (odds ratio [OR], 0.952, confidence interval [CI], 0.924-0.981,  $P = 0.001$ ), and having a lower body mass index (OR, 0.780, CI, 0.682-0.891,  $P < 0.001$ ) were independent predictors of long-term CAPD maintenance.

**Conclusion:** This study shows that CAPD could be a considerable option for long-term renal replacement, especially in non-diabetic and younger patients with less co-morbidities. However, attention should be needed for prevention and treatment of CAPD related complications in these patients.

**Keywords:** End-stage renal disease, Long duration peritoneal dialysis, Outcome