KSN SEOUL, KOREA 2023
April 27(Thu) - 30(Sun), 2023
Coex, Seoul, Korea

Abstract Type : Poster
Abstract Submission No. : 1570

Impact of oral spherical carbon adsorbent in pre-dialysis chronic kidney disease on cardiovascular outcomes and mineral-bone disorder after dialysis therapy

Takhyun Kwon, Jun yon Kim, Youn Kyung Kee, Dong Ho Shin, Jieun Oh, **Hee Jung Jeon**
Department of Internal Medicine-Nephrology, Kangdong Sacred Heart Hospital, Korea, Republic of

Objectives: Oral spherical carbon adsorbents (OSCA) are known to slow the progression of chronic kidney disease (CKD) by inhibiting the absorption of uremic toxins produced in the intestine. In this study, we evaluated the impact of using OSCA in pre-dialysis CKD patients on cardiovascular outcomes and mineral-bone disorder after dialysis therapy.

Methods: This study was a retrospective cohort study that enrolled patients who started dialysis therapy including hemodialysis and peritoneal dialysis at Kangdong Sacred Heart Hospital from 2010 to 2020. A total of 294 patients were included in this study, including 98 CKD patients who were administered OSCA before dialysis therapy (OSCA group) and 196 patients who were not administered OSCA with 1:2 matching by age and sex (control group).

Results: The mean age was 62.2 ± 12.7 years, with 60.2% male, and the most common cause of CKD was diabetes (67.0%). The ejection fraction in the echocardiogram was significantly higher in the OSCA group (58.1 ± 9.1 % vs. 55.5 ± 9.9 %, P = 0.033). The cardiovascular events in the control group were higher than those in the OSCA group, however, there were statistically not significant (26.0% vs. 19.4%, P = 0.266). However, the patients who were administered OSCA for more than 113 days showed significantly fewer cardiovascular events after dialysis therapy than those less than 113 days (P = 0.032 by log-rank test), which remained significant in multivariate cox regression analysis (HR 1.48, 95% CI 1.05-2.08, P = 0.025). There was no difference in bone mineral density, pulse wave velocity, bone-specific alkaline phosphatase, parathyroid hormone, and 25(OH)vitamin D levels.

Conclusions: The administration of OSCA in CKD patients before dialysis tended to reduce the incidence of cardiovascular events after the start of dialysis therapy, and the longer the period of administration of OSCA, the more significant difference was shown.