일반 연제(I)-2

PHARMACOKINETICS OF CARUMONAM IN PATIENTS UNDERGOING HEMODIALYSIS AND CONTINUOUS AMBULATORY PERITONEAL DIALYSIS.

Kyeong-Hun Lee, Chan-Woong Park, Jong-Tae Cho, Suhnggwon Kim and Jung Sang Lee. Dept of Pharmacology and Internal Medicine, Seoul National University College of Medicine, Clinical Pharmacology Unit / SNUH

To evaluate the influence of hemodialysis and continuous ambulatory peritoneal dialysis (CAPD) on the elimination of carumonam, pharmacokinetic studies were performed in 15 CRF patients undergoing intermittent hemodialysis or CAPD after a single intravenous administration of 1 gm.

Carumonam concentrations in biological fluid were measured by reversed-phase high-performance liquid chromatography.

In patients undergoing intermittent hemodialysis, the elimination half-life and the volume of distribution were 14.37±5.18 hr and 0.272±0.070 L/kg, respectively. Hemodialysis increased the mean body clearance of carumonam from 12.0 to 68.9 mL/min in CRF patients, and the amounts of carumonam recovered in the pooled dialysate over 4 or 5 hr were 363 to 545mg.

In patients undergoing CAPD, the volume of distribution of carumonam was 0.246±0.095 L/kg, and the elimination half-life was 11.52±4.43 hr. The total body clearance and the time-averaged net clearance of peritoneal dialysis was 15.1±4.7 mL/min and 4.0±1.6 mL/min, respectively.

Hemodialysis patients should receive a supplemental dose equal to half their maintenance dose immediately after each dialysis session.