Influence of dialysis duration, peritoneal transport parameters, and gender on effluent CA125 concentration in patients on peritoneal dialysis.

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Abstract

INTRODUCTION: Peritoneal effluent cancer antigen 125 (CA125) concentration is a marker of mesothelial cell mass in patients on continuous ambulatory peritoneal dialysis (CAPD). Accordingly, we aimed to observe the effects of CAPD duration, sex, and peritoneal membrane efficacy on CA125 levels in peritoneal effluent. MATERIALS AND METHODS: In 30 patients who were on CAPD for 6 months, concentrations of CA125 were determined in the 4-hour effluent peritoneal dialysate at the 6th and 12th month of CAPD initiation. The laboratory results were assessed in relation to the patients' sex and peritoneal membrane efficacy which was measured by the peritoneal equilibration test, weekly creatinine clearance, and the Kt/V. RESULTS: The patients were 16 men and 14 women with a mean age of 34.3 years (range, 17 to 56 years). With increasing the duration of CAPD, dialysate CA125 levels decreased significantly (P < .001). Whereas, there were no significant changes in Kt/V and creatinine clearance at 12 months. In the men, the CA125 levels were significantly lower 6 months after the start of CAPD compared to the women (P = .047). In low transporter and low average transporter patients, peritoneal effluent had slightly higher levels of CA125 in comparison with those in high transporter and high average transporter patients (P = .08). CONCLUSIONS: We found that peritoneal effluent CA125 level decreases in both men and women with increasing of CAPD duration, without any association with peritoneal transport parameters. Of interest, there was a gender difference in the CA125 levels in our series.

Reaxys Database Information

Indexed Keywords

EMTREE drug terms: biological marker; CA 125 antigen

EMTREE medical terms: adolescent; adult; article; ascites fluid; continuous ambulatory peritoneal dialysis; epithelium; female; glomerulus filtration rate; human; male; metastasis; middle aged; physiology; prospective study; sex ratio

MeSH: Adolescent; Adult; Ascitic Fluid; Biological Markers; CA-125 Antigen; Epithelium; Female; Glomerular Filtration Rate; Humans; Male; Middle Aged; Peritoneal Dialysis, Continuous Ambulatory; Prospective Studies; Sex Distribution; Young Adult

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