

Changes in Serum and Dialysate Levels of Cancer Antigen 125 in Continuous Ambulatory Peritoneal Dialysis Patients

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Background : Peritoneal mesothelial cells are the most important intraperitoneal cells quantitatively and have the capability to secrete different types of substance including lubricant and various cytokines. It may therefore be essential to have information on the mesothelial cell mass during peritoneal dialysis. Cancer Antigen 125 (CA 125) is a 22 KDa glycoprotein which is a clinically useful tumor marker of non-mucinous epithelial ovarian carcinoma. Recently, other cells including pleural and peritoneal mesothelial cell have been proved to express CA 125. This study was undertaken to determine whether CA 125 can be used as a marker of mesothelial cell mass in clinically stable 39 CAPD patients.

Results :

- 1) There was no correlation between the patients' age and the dialysate or serum CA 125 levels, respectively.
- 2) The dialysate CA 125 levels correlated with the duration of CAPD, negatively ($r=-0.345$, $p=0.039$).
- 3) There was a significant negative correlation between the dialysate CA 125 levels and D/P creatinine after 4 hours dwell ($r=0.549$, $p=0.001$), and a positive correlation between the dialysate CA 125 levels and D/Do glucose after 4 hours dwell ($r=-0.449$, $p=0.011$).
- 4) There was a significant positive correlation between the duration of CAPD and D/Do glucose at 4 hours ($r=0.521$, $p=0.002$).

Conclusion : These results suggest that the duration of CAPD affects dialysate CA 125 levels. Dialysate CA 125 may therefore be used as a useful marker to evaluate the mesothelial cell mass through longitudinal follow-up in CAPD patients.