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Editorial:

WATER AND ELECTROLYTES DISORDERS IN PERITONEAL DIALYSIS

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Version española

Given the fundamental role that the kidney has in the maintenance of homeostasis, it is not uncommon to observe the appearance of water and electrolytic disorders in patients who suffer from chronic terminal renal failure.

In the case of patients undergoing peritoneal dialysis, due to the particular aspects which are characteristic of this dialytic modality, there is a series of hydro-electrolytic problems which are more frequently detected in this subgroup of patients: hydrosaline retention, hypokalemia, hypermagnesemia, and respiratory alkalosis.

Regarding hydrosaline retention, it is observed when water and salt intake exceeds its urinary and/or dialytic excretion. The latter is observed when there is scarce ultrafiltration, be it due to an inadequate dialytic strategy or to stress of the peritoneal membrane. Concerning hypokalemia, it can be observed up to 30% of the peritoneal dialysis patients, originating from the effect of the released insulin due to the glucose absorbed from the peritoneal dwell (internal balance). Hypermagnesemia can be found in patients treated

with cathartics or antacids magnesium-based and dialytic dwell rich in this cation. Finally, it can also be observed respiratory alkalosis due to the presence of a relative acidosis between the pH of the cephalo-raquideal liquid and the serum one.

In conclusion: Water and electrolytic problems in the peritoneal dialysis patients can be the consequence of the combination of renal failure as well as dialysis treatment.

REFERENCES

- 1) Pérez Martínez J, López Montes A, Gómez Roldan C. Complicaciones médicas II. In Coronel F, Montenegro J, Selgas R (Eds). Manual práctico de Diálisis Peritoneal. Barcelona. Atrium Comunicación Estratégica. 2005:133-144
- 2) Musso CG. Potassium metabolism in patients with chronic kidney disease. Part II: patients on dialysis (stage 5). Int Urol Nephrol. 2004;36(3):469-72
- 3) Bargman J. Noninfectious complications of peritoneal dialysis. In Khanna R, Krediet R. (Eds.) Nolph and Gokal's Textbook of peritoneal dialysis. Springer. 2009: 571-609

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