The effect of fluid and sodium mortality on patients undergoing peritoneal dialysis

To the Editor: We read with interest the article by Ates et al [1] reporting the effect of fluid and sodium removal on mortality in patients receiving peritoneal dialysis. However, we have a few comments on the study.

The reported fluid and sodium overload, used for predicting mortality in the following term, was obtained over a relatively short time span. Patients can experience a temporary loss of ultrafiltration for any reason. In fact, the effects of fluid and sodium overload on cardiovascular mortality are based on long-term effects, which largely depend on the patient’s age, original disease, disease courses, nutritional status, renal residual function, and other complications.

Furthermore, we do not share the authors’ conclusion that Kt/V_{urea} is not a factor predicting adequate dialysis. Urea is still regarded as the best molecule for evaluating adequate waste elimination [2]. Kt/V_{urea}, arising from the urea kinetic modeling, is based on the dose of uremic related substances removed during dialysis. From this point of view, Kt/V_{urea} is indeed one of the most valuable indices to evaluate adequate peritoneal dialysis. We had previously shown that Kt/V_{urea} is a good method for calculating dialysis dose [3]. However, this evaluation should be adjusted for each situation. In cases of chronic fluid overload, Kt/V_{urea} should be adjusted by the patient’s dry weight and serum albumin.

Finally, Kt/V_{urea} evaluates the up-coming single dialysis “adequacy” dose and is not designed to predict long-term outcome, even though previous studies demonstrated Kt/V_{urea} is associated with better patient survival in patients undergoing peritoneal dialysis [4].

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