

THE PRESENCE OF CAREGIVER DOES NOT AFFECT THE OUTCOMES OF PERITONITIS IN PERITONEAL DIALYSIS PATIENTS.

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OBJECTIVES

In the last years dialysis patients became older and with high prevalence of comorbidities, which limit their independence and consequently their opportunity to have peritoneal dialysis (PD) as renal replacement therapy (RRT). To overcome the logistic problem of older and fragile patients, the management of peritoneal dialysis can be entrusted to a caregiver.

Currently, only one small study evaluated the influence of caregiver in the outcome of peritonitis episode. The aim of the study was to evaluate the influence of cohabitant caregiver on the outcome of peritonitis in term of healing, relapsing peritonitis, peritoneal catheter removal, and mortality.

METHODS

We performed a retrospective, case-control study between caregiver group and self-care group in patients who had at least one peritonitis episode. We analysed the basal conditions of the patients such as dialysis issue, comorbidity, residual renal function, BMI, albumin, haemoglobin, CRP. Furthermore, we evaluated the rate of healing and of complications such as relapsing, catheter removal, and mortality. To reduce the interference of the age on the outcomes, statistical analysis was stratified by age (\leq vs >75 year old). All continuous variable were reported as the median values and interquartile range (IQR). All categorical variables were reported as percentage. Kruskal Wallis test, and Pearson's chi-square test were used to compare continuous and categorical variables, as appropriate. All reported p-values were two sided, and statistical significance was set at $p < 0.05$. Statistical analysis was performed with SPSS version 20.0.

RESULTS

Table 1: Outcomes in the younger class of patients.

	Caregiver group	Self-care group	p
Length of antibiotic therapy (days)	10 (10-16)	13.5(10-20)	0.088 [^]
Rate of healing (%)	68	70.4	0.97 [*]
Rate of relapsing peritonitis	6.6	16.1	0.11 [*]
Rate of fungal complication (%)	0	1	0.38 [*]
Rate of catheter removal (%)	16.1	20	0.55 [*]
Rate of death (%)	8	2	0.074 [*]

Table 2: Outcomes in the older class of patients.

	Caregiver group	Self-care group	p
Length of antibiotic therapy (days)	10 (10-18)	20.5(12.5-22)	0.003 [^]
Rate of healing (%)	71.4	58.3	0.39 [*]
Rate of relapsing peritonitis	16.6	25	0.67 [*]
Rate of fungal complication (%)	2	8	0.34 [*]
Rate of catheter removal (%)	6	33.3	0.017 [*]
Rate of death (%)	11.9	0	0.21 [*]

In 42 months we evaluated 217 episode of peritonitis in 149 patients, 87 in patients who need the presence of caregiver to attend peritoneal dialysis procedures. As expected, only 27.6% of patients required assisted dialysis in <75 -year group, whereas the prevalence of assisted dialysis was 77.7% in >75 -year patients.

In the younger patients we found a statistical significant difference between self-care and caregiver group for some clinical features: higher prevalence of diabetes ($p < 0.001$), higher level of haemoglobin ($p = 0.042$), and higher level of total clearance of creatinine ($p = 0.021$) in caregiver group as well as a significant increase in Gram positive peritonitis rates in self-care group of patients ($p = 0.028$). Conversely, we did not have any significant difference between the two groups in term of length of antibiotic therapy and in term of outcome rate, despite the significant different in basal condition (table 1).

In the older class of age, we appreciated a higher prevalence of CAPD methodology ($p = 0.001$) in caregiver group. Furthermore in the same group of patients, we discovered a significant reduction in the rate of peritoneal catheter removal ($p = 0.017$) and in the length of antibiotic therapy ($p = 0.003$), as reported in table 2.

CONCLUSIONS

The present study explored influence of cohabitant caregiver on peritonitis outcomes in different class of age and shown a positive effect of cohabitant caregivers. Specifically, in >75 -year patients, we observed a significant reduction in the rate of peritoneal catheter removal and in the duration of antibiotic therapy and a lower tendency of gram positive peritonitis in presence of caregivers, whereas we observed a lower rate of gram positive peritonitis and a trend in shorter antibiotic course in <75 -year patients.

