Acceptability of 2-Liter Volume in Filipino Continuous Ambulatory Peritoneal Dialysis Patients

Romina A. Danguilan, Ronald S. Perez, Mary Joyce M. Berbisco, Leizel P. Evangelista

Objective: To determine whether there is any significant difference in symptoms resulting from the use of the 1.5 L versus the 2.0 L continuous ambulatory peritoneal dialysis (CAPD) bag in patients on regular CAPD.

Methods: Patients were randomized to receive either 1.5 L or 2.0 L fill volumes using a 1.5% dextrose solution, with the dialysate allowed to dwell for 2 hours. Patients were then asked to answer a questionnaire to determine if they experienced any discomfort during the dwell period. Symptoms were also analyzed using a score of one point for every type of discomfort experienced by the patient and 0 if the symptom was absent. The number of patients in each group who had no discomfort symptoms, discomfort symptom scores between 0 and 5, or more than five discomfort symptoms was determined.

Results: Sixty patients were enrolled in the study, with 30 patients in each treatment group. The study groups were comparable in age, sex, primary renal disease, body surface area, height, and weight. They differed in duration on CAPD before administration of the test. Patients in the 1.5 L group were on CAPD for a shorter period (median, 5 days) than those in the 2.0 L group (median, 92 days; p = 0.00, Mann-Whitney test). Fourteen patients (46.7%) in the 1.5 L group and 11 patients (36.7%) in the 2.0 L group experienced discomfort symptoms. Only three patients (10.0%) in each of the two study groups experienced abdominal pain. Patients were asked to answer a clinical assessment questionnaire on what type of discomfort they experienced during dwell time. The proportions of patients with difficulty breathing, abdominal pain, and difficulty sitting were significantly higher among those in the 1.5 L group than the 2.0 L group. Logistic regression analysis to control for the effect of the time interval in order to determine whether there was any difference between the groups in the discomfort experienced showed that there was no significant difference. There was also no significant difference in symptom score between the two groups.

Conclusion: There was no increase in abdominal discomfort when patients used the 2.0 L dialysis fluid bag compared to the 1.5 L bag. The hesitancy of patients to use larger volume exchange may be due to patient bias rather than abdominal discomfort. [Hong Kong J Nephrol 2003;5(2):84-9]

Key words: peritoneal dialysis, CAPD, exchange volumes, discomfort symptoms

目的: 以正在接受連續可活動性腹膜透析 (CAPD) 的病人為對象，調查1.5 L (公升) 與 2.0 L 的透析液體積對病人症狀的影響。

方法: 病人按隨機分配方式，接受體積為 1.5 L 或 2.0 L (內含 1.5% dextrose 溶液) 的CAPD。透析液留置時間為 2 小時。其後病人得填寫問卷，記錄透析期間曾經歷的任何不適(每種不適感以 1 分評定)。

結果: 本研究共有 60 位參與者。兩組病人 (各 30 位) 具有相似的基線特徵，包括年齡、性別、CAPD 之病因、體表面積、身高、及體重。然而，接受 1.5 L 的病人在過去 CAPD 的持
續時期 (中位數) 上比接受 2.0 L 者短 (5 天 vs 92 天; p = 0.00, Mann-Whitney test)。研究期間，在 1.5 L 及 2.0 L 組中，曾經歷不適的分別有 14 人 (46.7%) 及 11 人 (36.7%)，兩組間出現腹痛的各僅有 3 人 (10.0%)。透析期間的臨床症狀評估發現，1.5 L 組中曾經歷呼吸困難、腹痛、及端坐困難的病人比率均顯著高於 2.0 L 組。研究人員進行了邏輯迴歸分析，結果發現兩組病人之間在發生不適感的表現上相似；此外，兩組間在症狀評分上亦未出現顯著的差異。

結論：在 CAPD 過程中，2.0 L 的透析液體積並不會比 1.5 L 造成更多的腹部不適問題。因此，CAPD 中避免使用較大的透析液體積，是欠缺科學根據的做法。