

## 생체적합성 투석액의 임상적 유용성; 단일기관, 2년간 관찰연구

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### Clinical Experience of Biocompatible Peritoneal Dialysis Solution in a Single Center: 2-year Observational Cohort Study

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**Background :** Chronic utilization of a bio- incompatible peritoneal dialysis (PD) solution has been implicated as a cause of progressive loss of peritoneal permeability. Biocompatible dialysis solution has been expected to overcome such shortcomings resulting in the improved peritoneal membrane function and the preserved residual renal function (RRF). However, clinical benefits on peritoneal function and RRF of this solution were not clearly defined in the short- term randomized studies. Therefore, we conducted this study to elucidate more long- term effect of the biocompatible PD solutions.

**Methods :** This is an observational cohort study of 77 incident PD patients in a single center during a 2- year period. Of the patients, 34 patients were treated with neutral, lactate- buffered, low GDP solution (Balance group, B) and 43 patients were treated with conventional lactate- buffered fluid (Stay- safe group, S). There was no technical failure during study period, thus all 77 patients were included in the analysis. Demographic and laboratory data were collected at baseline. Peritoneal equilibration test (PET), residual GFR and dialysis adequacy were consecutively followed- up at baseline, 6, 12, 18, and 24 months of dialysis initiation.

**Result :** The demographics, comorbidities, residual GFR, D/P Cr at 4hr, ultrafiltration volume, and residual urine volume of both groups were similar at baseline. In addition, these parameters were not significantly different between the two groups at 6, 12, 18, and 24 months. Residual GFR started to decline significantly in both groups after 18 months of dialysis initiation ( $p < 0.05$ ). However, changes of residual GFR between baseline and 24 months were not significantly different between the two groups. Peritonitis rates were also similar in both groups.

**Conclusion :** We could not detect any clinical advantage of biocompatible solution over conventional solution on peritoneal membrane function and RRF during a 2- year period after dialysis initiation. It remains to be further explored whether biocompatible dialysis solution could contribute to the better long- term clinical outcome.

**Key Words :** 생체적합성 투석액, 복막기능, 잔여신기능

Biocompatible PD solution, Peritoneal membrane, RRF