In this retrospective cohort study, incident remote (travel distance ≥ 50 km) nephrologists and clinical outcomes of remote PD patients in Southern China.

**Objective:**

The First Affiliated Hospital, Sun Yat-sen University, Guangzhou, China

Outcomes of Remote Peritoneal Dialysis Patients

Association Between Compliance with Visiting Nephrologist and Clinical Outcomes of Remote Peritoneal Dialysis Patients

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**Objective:**

To investigate the association between compliance with visiting the attending nephrologists and clinical outcomes of remote PD patients in Southern China.

**Methods:** In this retrospective cohort study, incident remote (travel distance ≥ 50 km) PD patients in our PD center from January 2006 to December 2012 were enrolled and followed up until December 2014. According to the time intervals of visiting the attending nephrologists, the patients were divided into regular visiting group (1–6 months) and irregular visiting group (>6 months). The clinical outcomes were compared between the two groups.

**Results:**

A total of 966 incident remote PD patients whose mean age was 45.9 ± 14.4 years were enrolled. 38.0% of these patients were female, and 19.3% of them were diabetic. The median duration on PD was 36.0 (20.8–51.5) months. Compared with irregular visiting group (n = 154), patients with regular visiting (n = 812) had higher levels of hemoglobin, serum albumin, serum calcium, and lower systolic blood pressure, serum phosphorus, serum creatinine (all p < 0.05). The peritonitis rate of patients in regular visiting group was significantly lower than that in irregular visiting group (0.15 vs. 0.20 episodes per patient-year, p < 0.001). The technique survival rates were not significantly different between the two groups. At the end of 1, 3, and 5 years, patient survival rates were 97.2%, 88.1% and 76.0% in regular visiting group, and 89.9%, 71.1% and 52.4% in irregular visiting group (p < 0.001). Advanced age [hazard ratio (HR), 1.05 (95% CI, 1.03–1.06); p < 0.001], diabetes mellitus [HR, 2.15 (95% CI, 1.44–3.21); p < 0.001], lower hemoglobin [HR, 0.99 (95% CI, 0.98–0.99); p = 0.01] and poor compliance for visiting the attending nephrologists regularly [HR, 2.49 (95% CI, 1.69–3.68); p < 0.001] were risk factors for all-cause mortality after adjustment for travel distance, gender, high-sensitivity C-reactive protein, urine output, serum albumin and uric acid.

**Conclusion:** Visiting the attending nephrologists regularly was associated with better outcomes of the remote PD patients.

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Bioimpedance-guided Fluid Management Can Improve Clinical Outcomes in Peritoneal Dialysis Patients: A Prospective Randomized Control Trial

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**Objective:** To investigate the influence of fluid management guided by bio-impedance analysis (BIA) on clinical outcomes in peritoneal dialysis (PD) patients.

**Methods:** This was a prospective randomized controlled trial registered on the clinical trials website (No: NCT02000128). The prevalent PD patients with volume overload [extracellular water (ECW) / total body water (TBW) ≥ 0.40] were recruited from 1st July 2013 to 30th March 2014, and were randomized to BIA group (fluid management guided by BIA) and control group (guided by doctors’ experience) to reduce their fluid overload for 1 year.

**Results:**

A total of 240 eligible participants (mean age of 49.6 ± 15.4, 50.8% male) with a median vintage of 32 (17, 50) months were enrolled. At the end of the study, 11 (4.58%) patients died, 21 (8.75%) were permanently transferred to HD and 11 (4.58%) to kidney transplant. The 1-year mortality was not statistically different between the two groups (BIA vs. control: 2.5 vs. 6.7 events per patient-year, p = 0.12), while the technique survival had a trend to be higher in the BIA group (90.8% vs. 82.5%, p = 0.06). Less hospitalization was observed in the BIA group (1/51 patient-months vs 1/27 patient-months, p = 0.01), among which the incidence of non-catheter associated infections (17 episodes vs. 4 episodes, p = 0.007) and emergency cases due to hypertension (11.1% vs. 5%, p = 0.07) were significantly lower in the BIA group. In addition, the decline rate of ECW/TBW was much faster in the BIA group than the control (p = 0.02). The left ventricular mass index (200.12 ± 51.5) in the BIA group had a lower level (187.72 ± 49.7, p < 0.001), the nutrition status and inflammation were significantly improved in the BIA group compared with the control.

**Conclusion:** Volume management guided by BIA is an efficient way to alleviate fluid overload and improve cardiac dilation and remodeling, therefore decreasing the hospitalization rate and improving technique survival.

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