CI, 1.65–12.81) were associated with a significantly higher risk of cardiovascular mortality.

**Conclusion:** In CAPD patients, overweight was associated with uncontrolled BP and uncontrolled SBP, and uncontrolled SBP was associated with an increased risk of cardiovascular mortality. Patients with concurrent underweight and uncontrolled BP, as well as underweight and uncontrolled SBP had significantly higher risk of cardiovascular mortality.

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**0141**

**Impact of Type D Personality on Quality of Life in CAPD Patients**

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**Objective:** Type D personality is a stable and powerful predictor of impaired quality of life and poor health outcomes in various patient groups and healthy individuals. We attempted to assess the relationships among Type D personality, illness perception, social support and depression, and investigate the impact of Type D personality on quality of life (QOL) in continuous ambulatory peritoneal dialysis (CAPD) patients.

**Methods:** The demographic information, clinical data and laboratory findings in CAPD patients in our PD center from September, 2012 to September, 2013 were collected. Type D personality was assessed by the Chinese 14-Item Type D Personality Scale (DS14). Patients’ illness perception, social support, depression, and QOL were assessed by using the Brief Illness Perception Questionnaire (Brief IPQ), social support rating scale (SSRS), Beck Depression Inventory (BDI), and Short Form 36 (SF-36), respectively.

**Results:** Of the 385 CAPD patients investigated, 137 (35.6%) patients had a Type D Personality (Type Ds). Type Ds believed their illness had much more serious consequences (7.67 ± 2.64 vs. 6.27 ± 3.45, P < 0.001), and experience much more symptoms that they attributed to their illness (7.11 ± 3.58 vs. 5.93 ± 2.59, P = 0.023). Significant differences were found between Type Ds and non-Type Ds in QOL (395.2 ± 130.34 vs. 489.6 ± 148.38, P < 0.001), social support (21.7 ± 5.42 vs. 24.93 ± 5.83, P < 0.001), and depression (22.9% vs. 20.4%, P < 0.001). The correlation analysis demonstrated that Type D was positively associated with depression (r = 0.384, P < 0.01), while negatively associated with SF-36 score (r = −0.301, P < 0.01), and social support (r = −0.254, P < 0.01). Using multiple linear regression analysis, we found that Type D personality (β = −82.554, P < 0.001) was independently associated with SF-36 score.

**Conclusion:** Type D personality was a predictor of poor QOL in PD patients. Our results suggest that intervention for Type Ds may benefit CAPD patients in terms of QOL improvement.

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**0143**

**miR-200a Negatively Regulates TGF-β1-induced Peritoneal Mesothelial Cell Epithelial-Mesenchymal Transition by Targeting ZEB1 and ZEB2 Expression**

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**Background:** Peritoneal fibrosis (PF) is an almost invariable consequence of peritoneal dialysis (PD), which is an established alternative for the replacement therapy of end-stage renal disease. We know that miR-200a belong to miR-200 family, which is closely related to a variety of fibrotic diseases. However, the role of miR-200a in peritoneal fibrosis is largely unknown.

**Methods:** Human peritoneal mesothelial cell line (HMrSV5) was cultured in the presence or absence of TGF-β1. The protein expression levels of EMT index and E-box-binding homeobox (ZEB) 1/2 were determined by western blot. The level of miR-200a was determined by real-time PCR. miR-200a mimic or inhibitor and it negative control RNA, were transfected into HMrSV5 cells using Liptofectamine 2000.

**Results:** We found that miR-200a mimic can attenuated TGF-β1 induced peritoneal mesothelial cell EMT and synthesis of extracellular matrix. It was also demonstrated that the miR-200a was responsible for protecting peritoneal mesothelial cells from mesenchymal transition by targeting suppression of ZEB1/2.

**Conclusion:** The results suggested that miR-200a may not only be a useful biomarker of EMT in ovarian cancer, but also of potential therapeutic value in peritoneal fibrosis.

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**0144**

**Expression of miRNA200a in Peritoneal Dialysis-associated Peritoneal Fibrosis**

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**Background:** Peritoneal fibrosis (PF) is an almost invariable consequence of peritoneal dialysis (PD), which is an established alternative for the replacement therapy of end-stage renal disease. We know that miR-200a belong to miR-200 family, which is closely related to a variety of fibrotic diseases. However, the role of miR-200a in peritoneal fibrosis is largely unknown.

**Methods:** The peritoneal fibrosis mouse model associated with PD was established by intraperitoneal injection of lipopolysaccharide + 4.25% peritoneal dialysate. The expression of miRNA was detected by microarray. The expression of miRNA profiles between fibrotic and normal peritoneal tissues was compared (n = 3 in each group). The differentially expressed miRNA (miR-200a) was validated by real-time PCR in larger sample size cohorts (n = 15). The expressions of miR-200a were also detected in the epithelial-mesenchymal transition (EMT) process of peritoneal mesothelium cells.

**Results:** In mice model of PD, peritoneal tissue was markedly thickened and with a massive extracellular matrix accumulation. By miRNA microarray analysis, miR-200a was significantly down regulated (3.31 folds change,
P < 0.05) infibrotic peritoneal tissues. The down-regulated expression level of miR–200a was also validated by real-time PCR in larger cohorts (P < 0.05). Then, the expression level of miR–200a was detected in the EMT process of human peritoneal mesothelial cells. During the process of TGF–β1 induced EMT, miR–200a was significantly down-regulated compared with the control (P < 0.05).

Conclusion: Down-regulated expression of miR-200a was observed both during peritoneal fibrosis and TGF-β1 induced EMT in vivo and in vitro, suggesting that miR-200a may be involved in the peritoneum fibrosis by regulating the target genes of EMT.

![Fig. 1. A, B: peritoneal fibrosis in a mouse model of PD. C, D: peritoneal fibrosis index expression. E, F: EMT index expression during the EMT process of human peritoneal mesothelium cells. G: miR-200a expression level down-regulated during the EMT process. NPT: normal peritoneal tissue, FPT: fibrotic peritoneal tissue, * P < 0.05, ** P < 0.01.](http://dx.doi.org/10.1016/j.hkjn.2015.09.189)

0145

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: 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 regular 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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0148

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 bioimpedance 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: 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 (BIA vs. control: 2.5 vs. 6.7 events per 100 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 ± 154), patients 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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