

**Conclusion:** Atorvastatin with far-infrared radiation therapy via reducing inflammatory factors and thrombosis factors to protect AVF and deserve to be widely used in clinic.

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0357

#### Effect of Peritoneal Dialysis Combined with Hemodialysis on End-stage Renal Disease

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**Objective:** To explore the curative effect of hemodialysis combined with peritoneal dialysis treating the end-stage renal disease.

**Methods:** Selected 120 patients who were diagnosed end-stage renal disease in our department from July 2012 to December 2013. According to the types of dialysis, they were randomly and equally divided into combination group, hemodialysis group and peritoneal dialysis group. Follow up for 3 years, observed renal function, biochemical index, lipid metabolism, renal morphology and blood flow signal changes, as well as the incidence of complications and survival of three groups before and after treatment.

**Results:** After different treatments, renal functions of three groups of patients were significantly improved. The urea nitrogen (BUN) and serum creatinine (Scr) of the combination group had no significant difference from hemodialysis group ( $P > 0.05$ ), but they were significantly lower than that of peritoneal dialysis group ( $P < 0.05$ ). The levels of hemoglobin and albumin of the combined group were significantly higher than peritoneal dialysis and hemodialysis group, and the differences were statistically significant ( $P < 0.05$ ). Compared with hemodialysis group, the rising amplitudes of hemoglobin and red blood cells of peritoneal dialysis were higher ( $P < 0.05$ ) but the level of albumin (ALB) was lower ( $P < 0.05$ ). Compared with peritoneal dialysis group, the combination group had lower levels of triglyceride (TG), low density lipoprotein (LDL-C), very low density lipoprotein (VLDL) and a higher level of high-density lipoprotein increased (HDL-C) ( $P < 0.05$ ), but a less significantly different level of the total cholesterol (TC) ( $P > 0.05$ ).

**Conclusion:** Combined dialysis treatment for end-stage renal disease has better effect, less complications and increased survival rate, and is worth of clinical promotion.

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#### Analysis of Clinical Features of Peritoneal Dialysis-related Peritonitis

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**Objective:** To understand the status of clinical features and pathogenic bacteria by analyzed the related factor, in order to improve the patients' quality of life.

**Methods:** Selected the patients from January 2012 to December 2014, and recorded each patient's gender, age, primary disease, intestinal disorders (diarrhea or constipation), peritoneal fluid culture, serum albumin, hemoglobin, serum creatinine, serum calcium, serum phosphorus, parathyroid hormone, peritoneal dialysis age. Summed up the pathogenic bacteria, clarify the dangerous factors of PD related peritonitis.

**Results:** (1) There were 46 cases including 58 times of PD related peritonitis in total of 126 cases, and 47 cases culture positive in the 58 times of peritoneal fluid culture, the positive rate was 81.03%, including 29 cases with Gram-positive cocci (61.70%), Gram-negative bacilli in 12 cases (25.53%), 6 cases of fungus (12.76%). (2) There was no difference between the two group of patients' age, gender, dialysis age and primary disease. (3) Peritonitis patients' red blood cell, hemoglobin, serum albumin, serum calcium levels were lower than the control group ( $P < 0.05$ ). (4) Peritonitis group diarrhea/constipation increased significantly compared with the control group ( $P < 0.01$ ). (5) Peritonitis group of 58 patients with a total of three deaths, 6 cases changed to hemodialysis, the rest of the patients were cured. The 6 cases of fungal peritonitis, 4 cases had extubation and changed hemodialysis, 2 cases died.

**Conclusion:** (1) Gram-positive bacteria are the most common pathogens in PD-related peritonitis. (2) Poor nutrition, anemia, electrolyte disorder,

bowel dysfunction are the risk factor of PD-related peritonitis. (3) Fungal peritonitis had a higher rate of mortality and dropout rates.

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#### Regular Urokinase Intervention in Catheter Maintenance in Patients with Maintenance Haemodialysis

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**Objective:** Explore the efficacy of Long-term catheter maintenance in uremia patients with regular thrombolysis therapy by urokinase.

**Methods:** Forty uremia patients were recruited from our hospital between October 2008 and December 2014. They were all received blood purification average from 3 to 6 years. All of them were cuff tube. 21 patients were male, average age, 68.40. They were divided into two groups randomly: group A (19 cases), they were treated with thrombolysis therapy by urokinase after dialysis. These patients received thrombolysis therapy by urokinase regularly (once every 2 weeks), sealed with heparin when blood purification were ended. And control group (21 cases) only treated with heparin sealing. Then compare the index changes, such as Bun, Scr, KT/v, PT, APTT.

**Results:** Compared blood flow, venous pressure, Bun, Scr, PT and APTT of the two group patients before treatment. There were no statistically significant differences (all  $P > 0.05$ ). The levels of venous pressure of urokinase intervention group on a regular basis was  $68 \pm 30.5$  mmHg, BUN ( $7.2 \pm 3.7$  mmol/l), Scr ( $200.5 \pm 90.4$   $\mu$ mol/l), there were statistically significant difference (all  $P < 0.05$ ). CRP obviously reduced after the intervention compared with control group; the blood flow and KT/v obviously increased, there were statistically significant differences (all  $P < 0.05$ ). There were no statistically significant differences (all  $P > 0.05$ ) of PT and APTT. There were 2 cases in the group thrombolysis therapy by urokinase, accounting for 11%. Ten people in the control group, accounting for 47%. There were no statistically significant differences ( $P > 0.05$ ) of bleeding.

**Conclusion:** Thrombolysis therapy by urokinase regularly can improve the quality of dialysis patients, reduce the incidence of catheter thrombosis and extending the service life of the catheter.

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#### Effects of Serum of Hemodialysis Patients on TF and PAI-1 Secretion by Human Vascular Endothelial Cells During Treatment with Atorvastatin and Anticoagulant

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**Objective:** To elucidate the effects of serum of patients with hemodialysis on tissue factor (TF) and plasminogen activator inhibitor-1 (PAI-1) secretion of human vascular endothelial cells (HUVEC) during treat of atorvastatin and anticoagulant.

**Methods:** Twenty patients who snuffbox arteriovenous fistula (SAV) or central venous catheterization in hemodialysis patients involved were divided into two groups randomly, 10 patients treated with atorvastatin and anticoagulant and the others with anticoagulant for 3 months. The blood was collected from patients at 0 months, 1 month, 2 months, and 3 months during treatment. Serum TNF- $\alpha$ , IL-1 $\beta$  were measured by ELISA. TF and PAI-1 secretion of HUVEC stimulated with serum of patients with hemodialysis undergoing drug treatment were detected. TF and PAI-1 expression level were assayed by RT-PCR.

**Results:** TF and PAI-1 secretion were significantly increased in HUVEC stimulated with serum of patients with haemodialysis, but the levels were decreased after treatment with atorvastatin and anticoagulant. The secretion of TNF- $\alpha$  and IL-1 $\beta$  that atorvastatin and anticoagulant group were lower than atorvastatin group.

**Conclusion:** Serum of patients with hemodialysis promote the secretion of TF and PAI-1 in HUVEC. The dysfunction of HUVEC induced by serum of patients with hemodialysis may be related to mediators of inflammation. Treat