Clinical characteristics of patients with refractory ascites after removal of peritoneal dialysis catheter

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Objectives: Refractory ascites occurring after the removal of peritoneal dialysis catheter are often complicated with prolonged hospitalization and morbidity. We therefore investigated the clinical characteristics of chronic dialysis patients with refractory ascites who underwent removal of peritoneal catheters in our dialysis center.

Methods:
During 2004 to 2017, 170 patients have removed peritoneal catheter for various reasons, among which refractory peritonitis was the leading cause (n=79, 46%). Patients' clinical parameters and laboratory data were examined by reviewing medical charts. Statistical analysis were evaluated using IBM SPSS.

Results: Total 31 patients experienced refractory ascites after the removal of catheter. Mean age was 56.28 ± 8.6, with peritoneal vintage of 5.8±2.8years. Refractory ascites requiring catheter drainage occurred during the first month after the removal (n=19, 61.3%) mostly in patients who removed peritoneal catheter due to refractory peritonitis (p=0.006). The nature of drained ascites showed a trend of lower Serum Ascites Albumin Gradient (SAAG), higher LDH and significantly higher ADA level compared to patients with delayed ascites who developed ascites after more than 1 month (SAAG 1.03±0.49 vs 1.41±0.69, p=0.151, LDH 4681.8±10465 vs 168.3±48.8, p=0.069, ADA 54.8±73.6 vs 13.6±6.0, p=0.022). More than half of the patients (n=16, 51.6%) experienced recurrence of refractory ascites, mostly within several months (mean 26.67±24.5) with SAAG value of 1.45±0.74, indicating that portal hypertension was the most common cause of recurrent ascites.

Conclusions: Recurrent refractory ascites developing after the removal of peritoneal dialysis patients may be related to increased portal hypertension related to underlying heart or liver disease. Attention should be paid within months in patients who develop refractory ascites requiring percutaneous drainage.