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**Utilization of Peritoneal Dialysis in Patients with Ascites**

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**Purpose:** The purpose is to demonstrate that peritoneal dialysis (PD) can be effectively utilized in dialysis dependent patients with ascites who require paracentesis.

**Background:** Abdominal paracentesis involves the surgical puncture of the peritoneal cavity with a needle or placement of a catheter for the removal of excess fluid for diagnostic or therapeutic purposes. Complications may include; peritonitis, bleeding, hypotension, and persistent leaking at puncture site.

**Methods:** Laparoscopic insertion of peritoneal dialysis catheter. Drained ascites fluid twice weekly with use of PD flushes until start of continuous ambulatory peritoneal dialysis (CAPD). Pre/Post sitting and standing blood pressure and pulse were measured. Cultures, gram stain, cell count, fungal, and acid-fast bacilli from ascites fluid was sent for testing.

**Results:** At time of PD catheter insertion, 6L of ascites fluid was drained by the surgeon. The ascites fluid from PD flushes were cloudy and ranged between 500mL to 3.5L. All cultures resulted in no growth. Gram stain showed few to many white blood cells (WBC). Cell count showed WBC > 100 and red blood cell count (RBC) > 300 consistently. Patient asymptomatic of peritonitis and not treated with antibiotics. CAPD training started 3 weeks after PD catheter insertion. At the beginning of each training, patient drained cloudy ascites fluid prior to filling. CAPD effluent cleared with each exchange throughout training. Patient trained for 4 days on CAPD and peritoneal cavity left dry at end of each training session. Post training, the patient's overnight dwells at home for 3 days were described as mostly clear and ultrafiltration ranged between 800mL – 1.4L. Fourth day of CAPD all effluent was clear. After 3 months patient transitioned to automated peritoneal dialysis (APD).

**Conclusion:** Patient did not require any further paracentesis with the start of CAPD. Patient is meeting target Kt/V with zero episodes of peritonitis, tunnel, or exit site infections. PD may be beneficial for patients with end-stage renal disease (ESRD) that require frequent or chronic paracentesis for ascites.

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