

## 혈액투석용 이중 도관을 이용한 복막투석 카테터 삽입법

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### PD Catheter Insertion using Double Lumen Hemodialysis Catheter

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**Purpose** : Among several techniques for insertion of continuous ambulatory peritoneal dialysis (CAPD), blind percutaneous placement using a Tenckhoff trocar is still used in practice. However, it is time-consuming and may induce serious complications such as preperitoneal placement of catheter, bowel perforation and hemoperitoneum. To perform CAPD catheter insertion more easily, quickly and safely at bedside, we developed a simple technique using double lumen hemodialysis (HD) catheter instead of 16 gauge angiocatheter for infusing 2 liter of dialysis solution and trocar for double-cuff Tenckhoff catheter insertion and investigated the clinical utility of this approach in establishing access for peritoneal dialysis.

**Methods** : After skin incision and dissection of subcutaneous fat tissue, we exposed the anterior fascia of rectus muscle. Then, double lumen HD catheter (You-Bend™ Two lumen HD catheterization set, Arrow®) was inserted by modified Seldinger method, aiming 15 degrees off the perpendicular toward the patient's coccyx. Two liters of dialysis solution were infused through arterial port. After removing HD catheter, CAPD catheter with a stylet was introduced into the insertion site. Guidewire remained through the insertion site until the success of CAPD catheter insertion. We applied this method in new patients from 2008 to 2009 (Group 1, n=13) and compared with those using Tenckhoff trocar from 2006 to 2007 (Group 2, n=51).

**Results** : Baseline characteristics were similar between two groups. However, group 1 showed significantly shorter infusion time of 2 liter ( $13.7 \pm 1.3$  min vs  $28.7 \pm 3.2$  min,  $p < 0.05$ ) and total operation time ( $88.0 \pm 13$  min vs.  $105.7 \pm 7.5$  min,  $p < 0.05$ ) than group 2. Early technical complication was high in group 2: diminished outflow volumes (6), pericatheter leakage (3), peritonitis (1), bowel perforation (1), bleeding from inferior epigastric artery and severe hematoma in rectus muscle and pelvic cavity (1), catheter obstruction due to blood clot (1). However, there were fewer complications in group 1: poor drainage (2) and catheter malposition (1).

**Conclusions** : This modified seldinger technique using double lumen HD catheter seems to offer considerable savings in operating time and reducing the short-term complications.

**Key Words** : 말기신부전, 지속성 보행성 복막 투석, 기술, 카테터  
ESRD, CAPD, Technique, Catheter