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Simple Port Approach to Laparoscopic Repair in Continuous Ambulatory Peritoneal Dialysis

Andy Zulfiqqar[1], Indrawarman Soerohardjo[1], Ahmad Zulfan Hendri[1], Reza Yorghi Seputro[2]

[1]Division of Urology, Public Health and Nursing UGM, Dr. Sardjito General Hospital, Faculty of Medicine, Yogyakarta, Indonesia
[2]Department of Anatomy, Public Health and Nursing, Univesitas Gadjah Mada Faculty of Medicine, Yogyakarta, Indonesia

Corresponding author: Indrawarman Soerohardjo ✉ indrawarman@ugm.ac.id

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The global response to end-stage kidney diseases is complex, and the decision is influenced by local disease burden, socioeconomic, and cultural factors.[1] Approximately 2.6 million people received kidney replacement therapy in 2010 and the number is expected to rise to at least 5.4 million by 2030.[2]

Continuous ambulatory peritoneal dialysis (CAPD) is currently considered the preferred method of kidney replacement therapy. It has been shown to improve patients' quality of life and survival. Laparoscopy is a minimally invasive approach to CAPD catheter placement that provides direct visualization of the surgical field. There are several techniques and devices available for CAPD catheter placement, and the optimal approach must be individualized for each patient.[3-9]

Despite extensive development for decades, infection resulting in either peritonitis or exit site infection is the most common complication, followed by mechanical obstruction and dialysate leakage.[3,10] Many surgeons have demonstrated various techniques to prevent thesecomplications.[3,7,11] A simple approach with only one 5-mm trocar is amenable approach in most cases. We used this technique to be troubleshooting a simple omental obstruction followed by catheter migration.

First, a 3 cm skin incision was made on palmers point (Figure 1). A 5-mm trocar was placed for the camera, which found the catheter was placed too lateral and adhesion was noticed (Figure 2A). The CAPD catheter was moved to a medial position by using CAPD trocar with guided laparoscopy (Figure 2B).

We introduced a non-absorbable suture 2.0 with 16 Fr Abbocath, followed by a fascial device to perform catheter fixation (Figure 3) to prevent future migration of the catheter. Additional port insertion was not required

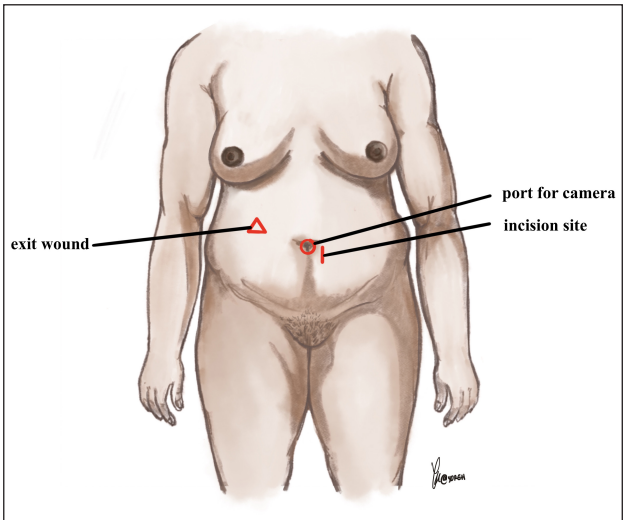

Figure 1. Skin incision and port entry.

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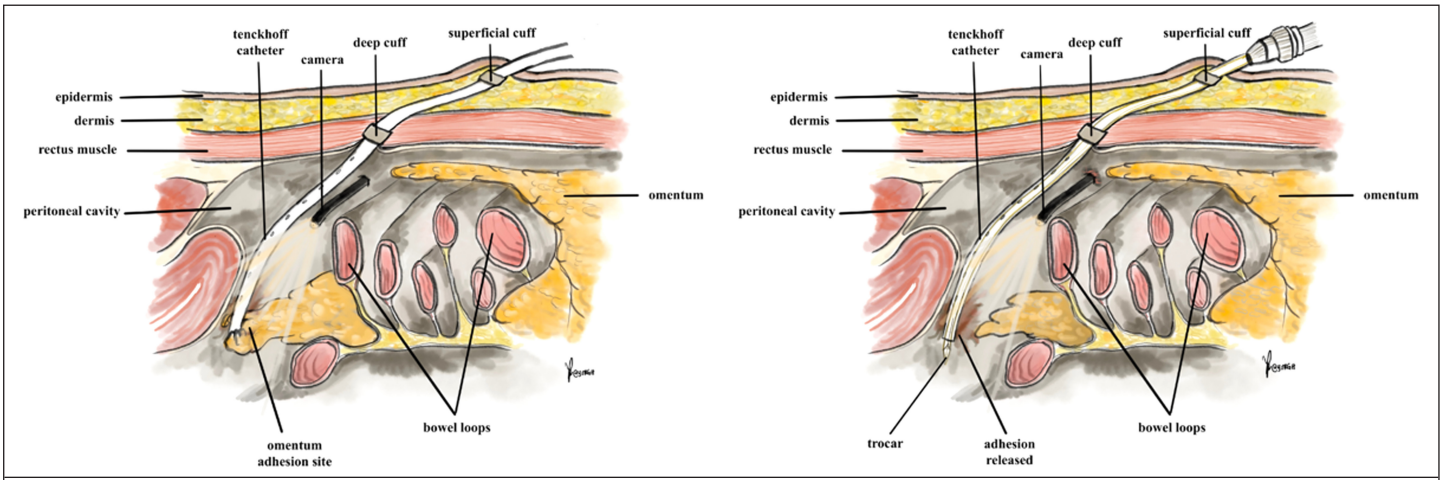

Figure 2. (A) Insertion of Tenckhoff catheter on the omentum adhesion site and (B) release of adhesion.

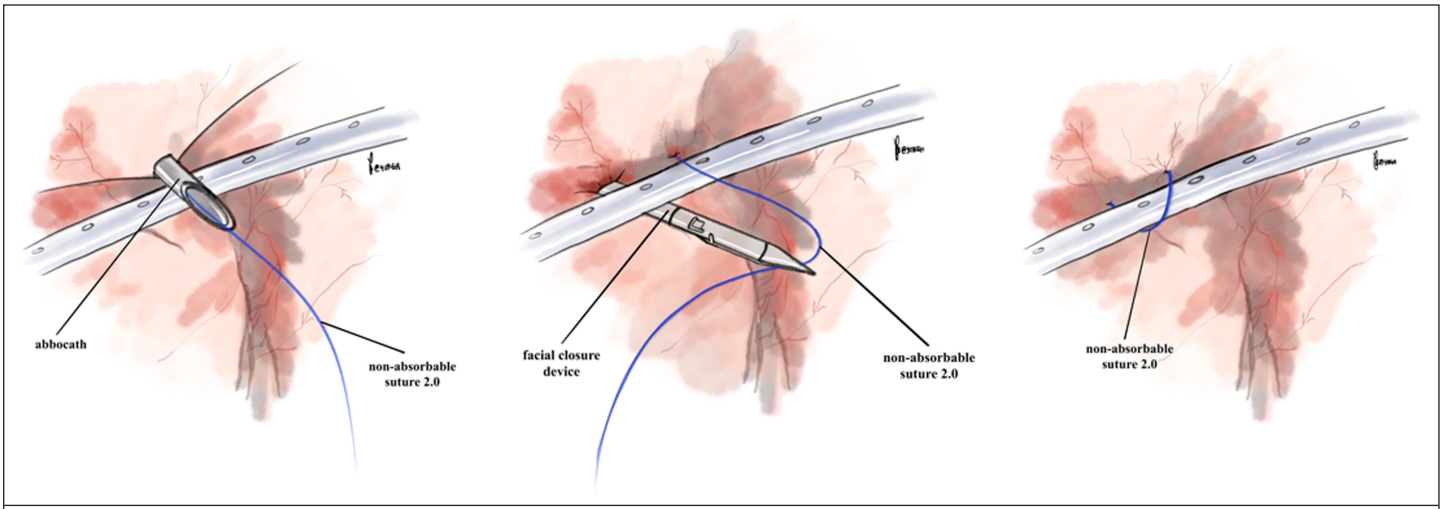

Figure 3. Insertion of non-absorbable needle through abdominal wall.

The main learning point of this article is our technique is possible to use on simple cases of omental wrap or plugging that can be fixed with a proper catheter placement with guided metal CAPD trocars. The use of Abbocath and fascial closure devices is a convenient technique to perform catheter fixation with a relatively short time required for the operation.

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