

A Rare Complication of Abdominal Drain: Transmigration of Drainage Tube into The Diverting Loop Ileostomy

*Karın İçi Drenin Nadir Bir Komplikasyonu: Drenaj Kateterinin
Saptırıcı Lup İleostomi Lümenine Göçü*

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ÖZET

Altmış dört yaşında bir erkek hastaya rektum kanseri nedeniyle aşağı anterior rezeksiyon ve saptırıcı lup ileostomi uygulandı. Ameliyat sonrası dönemde pelvik dreninden iltihabi vasıfta sıvı geldiği gözlenen hastada kontrollü bir fistül olduğu düşünüldü. Ameliyat sonrasındaki 36. günde yapılan kontrol sırasında pelvik drenin karın içinde kalan ucunun saptırıcı ileostominin lümeninden dışarı çıktığı görüldü. Klinik ve radyolojik olarak serbest perforasyon varlığı dışlandıktan sonra, drenin düzenli yıkanması ve kademeli geri çekilmesi şeklindeki konservatif tedavi ile hasta başarılı bir şekilde şifaya kavuşturuldu.

Anahtar Kelimeler: Cerrahi dren, Dren komplikasyonları,
Dren göçü, Pelvik anastomoz

ABSTRACT

A 64-year-old male patient had low anterior resection and diverting ileostomy for rectal cancer. Regarding to purulent drainage from the pelvic drain in the postoperative period, the patient was considered to have a controlled fistula. At the 36th postoperative day, the abdominal tip of pelvic drain was seen to come out through the lumen of diverting ileostomy. As the patient had no clinical and radiological signs of free perforation, he was successfully managed by conservative treatment with regular irrigation and gradual withdrawal of the drain.

Key words: Surgical drain Drain complications Drain migration Pelvic anastomosis

Başvuru Tarihi: 10.11.2011, Kabul Tarihi: 09.12.2011

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Kolon Rektum Hast Derg 2011;21:187-190

Introduction

Drainage is the one of basic components of surgery. Drainage is aimed to be either prophylactic or therapeutic. Although therapeutic drainage is generally accepted to be beneficial, the role of prophylactic drainage is still controversial.¹

Pelvic drains in rectal surgery are usually used for drainage of accumulating pelvic fluid and early detection of anastomotic complications.² However, recent data suggest that pelvic drains have no positive effect on prevention of anastomotic complications in rectal surgery.³

Various complications of abdominal drains have been defined so far.⁴ These include pressure necrosis on the adjacent tissues and subsequent complications (bleeding, perforation, fistulization) due to chronic compression, drain site hernia, mechanical bowel obstruction, and drain site infection. Of note, some authors suggest that a drain placed in the proximity of an anastomosis may have a negative effect on anastomosis.⁷

In this case report, the management of a patient who presented with a pelvic drain migrated into the lumen of diverting ileostomy after low anterior resection for rectal cancer is described.

Case report

A 64-year-old male admitted to outpatient clinics for tenesmus, change in bowel habits, intermittent hematochesia, and weight loss. His medical history was unremarkable. Physical examination revealed no pathological findings. At colonoscopy, an ulcerovegetating starting at 13 cm distal to the anal verge and extending 5-cm proximally was discovered. Contrast-enhanced abdominal computed tomography (CT) showed no pathologies except the lesion at the rectosigmoid junction. Histopathological examination of biopsy



Figure 1. Both ends of the abdominal drain.

specimen was found to be consistent with moderately differentiated adenocarcinoma, and thus, surgical treatment was decided upon.

Surgical exploration revealed the tumor was at 1/3 upper rectum and had no extramural extension. Low anterior resection, an end-to-end colorectal anastomosis, and diverting loop ileostomy was carried out. A 28 F silicone drain was placed in the pelvis. Surgery was uneventful without any intraoperative problems.

The drainage was serohemorrhagic until the 4th postoperative day, when drainage became purulent. Physical and biochemical findings of the patient were all normal. The amount of drainage has gradually decreased to less than 50 ml/day in the following days. Because the patient had no clinical findings and his stoma was active, he was discharged on the 13th postoperative day without withdrawal of the drain to return for regular controls. Histopathological examination revealed a pT2N0M0 tumor with adequate margins and without lymphovascular invasion.

Although the amount of drainage was less than 50 ml/day, drainage was still purulent at the 15th postoperative day. Thus, the patient was considered to have controlled fistula. Conservative treatment was considered, since there was no septic signs. At the 36th postoperative day, however, the abdominal tip of the drain was seen to come out through the lumen of the efferent loop of diverting ileostomy (Figure-1). Physical and biochemical findings were also normal at this stage. Triple contrast-



Figure 2. The abdominal tip of the drain coming out through the efferent loop of diverting ileostomy.

enhanced (intravenous, oral, rectal) CT demonstrated a pelvic pouch connected to the posterior aspect of the anastomosis and filled with contrast media, and the intraabdominal course of the drainage tube, which was encircled by a fistulous tract in its entire course (Figure-2).

The patient was immediately rehospitalized. Daily irrigation with 1.000 ml warm saline through the drain was performed. The drain has gradually been withdrawn in days from its original entry at the left lower quadrant. At the 7th day of rehospitalization, the drain was completely withdrawn, and the wound was closed with sterile dressings. The patient had neither any clinical signs nor discharge from the wound at the 10th day, and was therefore discharged. There were no stoma-related problems at the 14th day, and the wound has completely healed as well. The patient was referred to medical oncologist for further treatment and regular follow-up.

Discussion

Drainage in elective colorectal surgery is generally prophylactic. Some authors suggest that pelvic drainage may prevent anastomotic complications by the drainage of accumulated fluid which may lead to abscess or hematoma formation that may have negative effects on pelvic anastomosis.⁵ However, a recent meta-analysis in 2008 investigated the effect of pelvic drains on morbidity and mortality rates in elective colorectal surgery, and found that there were no significant differences between those with and without drainage.¹ In addition, pelvic drainage should not be considered as an excuse for possible anastomotic complications after a suboptimal pelvic anastomosis.

Perhaps, the absolute advantage of prophylactic pelvic drain in elective colorectal surgery is that drainage is a sufficient treatment in cases who have anastomotic dehiscence with septic complications confined to pelvic space.⁶ This is particularly important in patients who does not have a diverting stoma, since drainage may even avoid the necessity for diverting stoma if local

control is achieved. In addition, surgeons who have relatively high rates of anastomotic complications may be more liberal about drainage in elective colorectal surgery.

Various complications of abdominal drains have been defined so far.⁴ These include pressure necrosis on the adjacent tissues and subsequent complications (bleeding, perforation, fistulization) due to chronic compression, drain site hernia, mechanical bowel obstruction, and drain site infection. Of note, some authors suggest that a drain placed in the proximity of an anastomosis may have a negative effect on anastomosis.⁷ In the present case, the possible scenario is that the drain displaced to the anterior abdominal wall next to the efferent loop of diverting ileostomy, and eroded the bowel wall and migrated into the lumen. In an optimistic perspective, the patient may considered to be lucky because fibrotic reaction around the drain, which leads to formation of a fistulous tract, avoided free perforation and subsequent generalized peritonitis. This also provided the opportunity to carry out a successful conservative treatment.

It should also be emphasized that there are yet no such cases treated by conservative management in literature. The factors that encouraged us to proceed with conservative treatment were lack of clinical and biochemical abnormalities, radiological findings including drainage of a completely walled-off pelvic pouch into the rectum, and the absence of free perforation and its consequences. Otherwise, the appropriate approach would be the extraction of drainage tube and revision of diverting stoma via laparotomy.

In conclusion, because the abdominal drain itself may lead to significant morbidity, the necessity of abdominal drainage should be assessed by risk-benefit analysis

Acknowledgement

The authors have no conflicts of interest or financial ties to disclose.

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