A Rare Case of Acute Intestinal Obstruction Due to the Migration of Penile Prosthesis

Penil Protez Migrasyonuna Bağlı Nadir Bir Akut Barsak Tıkanıklığı Olgusu

Penil Proteze Bağlı İleus / Ileus Due to Penile Prosthesis

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Özet

Akut barsak tıkanıklığı genel cerrahi pratiğinde en sık acil hastalıklardan biridir. Ameliyat sonrası yapışıklıklar, fıtıklar ve kanserler barsak tıkanıklığı olan olguların çoğunluğunu oluşturmaktadır. Ancak, şişirilebilir penil protez cihazlarına bağlı ince barsak tıkanması son derece nadir bir durumdur. 59 yaşındaki erkek hasta karın ağrısı, bulantı, kusma ve ishal ile acil servise başvurdu. Hastanın klinik ve ultrasonografik bulguları perfore apandisit ile uyumlu idi. Operasyonda, migrate olmuş penil protez rezervuarı ile ileum arasında fibröz bantın neden olduğu ince barsak tıkanması tespit edildi. Hastaya barsak rezeksiyonu olmaksızın bridektomi uygulandı. Şişirilebilir penil protez medikal tedaviye dirençli erektil disfonksiyonu olan hastalar için yaygın olarak kullanılır. Nadir olmakla birlikte, bu tür hastalarda, barsak tıkanıklığının bir nedeni olarak penil protez her zaman akılda tutulmalıdır. Bu nedenle, bu hastalar preoperatif ayrıntılı değerlendirilmelidir.

Anahtar Kelimeler

Barsak Tıkanıklığı; İleus; Komplikasyon; Penil Protez

Abstract

Acute intestinal obstruction is one of the most common emergent disorders in general surgery practice. Postoperative adhesions, hernias and cancers constitute the majority of cases with intestinal obstruction. However, small bowel obstruction due to an inflatable penile prosthetic device is an extremely rare condition. A 59-year-old male patient was admitted to emergency room with abdominal pain, nausea, vomiting and diarrhea. Clinical and ultrasonograpic findings were consistent with perforated appendicitis. At operation, a small bowel obstruction caused by a fibrous strand between migrated reservoir of the penile prosthesis and ileum was detected. Bridectomy without resection of bowel loop was performed for the patient. Inflatable penile prosthesis is widely used for the patient with erectile dysfunction refractory to medical treatment. Although rare, a penile prosthesis should always be kept in mind as a cause of intestinal obstruction in such cases. Therefore, these patients should be evaluated in detail preoperatively.

Keywords

Complication; Ileus; Intestinal Obstruction; Penile Prosthesis

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Introduction

Acute intestinal obstruction (AIO) is one of the most common emergent conditions in general surgery practice worldwide, accounting for approximately 15% of all acute abdomen cases [1]. Although postoperative adhesions, obstructed hernias and cancers are the most common causes of AIO, a variety of rare conditions can result in this clinical entity. Among those, migration of penile prosthesis into the abdomen is extremely rare. As is well known, inflatable penile prosthesis has been widely used for men with erectile dysfunction. Several complications such as infection, reservoir herniation, and injury of the surrounding tissues and organs have been described to date. However, best of our knowledge, only a few cases of AIO due to penile implants were reported in the literature [2-4]. There is also no report on this topic from Turkey. In this paper, a rare case of small bowel obstruction due to the migration of penile prosthesis was presented and discussed with the relevant literature.

Case Report

A 59-year-old man presented to the emergency room with abdominal pain, nausea, vomiting and minimal distention for three days. He also suffered from diarrhea for the last two days. The patient had several co-existing clinical disorders including diabetes mellitus and coronary artery disease, which were under medical treatment for a long time. He also had a history of penile prosthesis surgery due to diabetic erectile dysfunction 12 years ago. On physical examination, there were tenderness, defense and rebound tenderness at the lower part of abdomen. Routine laboratory tests showed increased inflammatory markers (WBCs: 14.0 K/ µl, CRP: 94.4 mg/l). Abdominal X-ray demonstrated moderate nonspecific dilations of the small bowel, with no pneumoperitoneum. On ultrasonography, a 8 cm tubular structure without response to compression and an amount of fluid within the small bowels were detected, which strongly suggested a perforated appendicitis. At laparotomy via lower midline incision, it was seen that the reservoir of the penile prosthesis migrated into the abdomen and a rigid fibrous strand was present between the reservoir and terminal ileum, which caused a nearly complete intestinal obstruction (figure 1A,B).



Figure 1. A. Penile prosthesis device migrated into the abdominal cavity B. The view of the ileal part of the firm fibrous band after bridectomy. The dilated small bowel proximal to fibrous strand can be also clearly seen.

The appendix was dilated and hyperemic due to intra-abdominal fluid. There was no severe ischemic damage or necrosis in the intestines, therefore a bridectomy with the removal of implant was performed. The postoperative course was uneventful and the patient was discharged on day five. A written consent form was also obtained from the patient for this study.

Discussion

The management of AIO is often a surgical challenge due to various clinical and radiological findings. It may be sometimes confused with other causes of acute abdomen, or the primary etiology may not be always clearly determined preoperatively, particularly in cases of incomplete obstruction. Similarly, our patient had physical findings of acute abdomen and a mild diarrhea with a minimal distension, which did not suggest an intestinal obstruction as initial diagnosis. Moreover, the ultrasound findings pointing perforated appendicitis, and nonspecific abdominal X-ray led to incorrect preoperative diagnosis.

It is well known that intra-abdominal adhesions are responsible for up to 70% of cases with AOI [5]. These adhesions are fibrous strands extending between various abdominal organs and structures, and are mostly associated with any intra-abdominal or pelvic surgery such as colectomy, appendectomy and hysterectomy [6]. Intra-abdominal infectious disorders and foreign bodies such as peritoneal dialysis catheters and drains can also cause strong adhesions within the abdominal cavity, which can lead to AIO. However, migration of a penile implant into the abdomen causing an intestinal obstruction is an exceptionally rare condition. In the literature, there are a few reports on this unusual complication of penile prosthetic devices, which are mostly as single cases. Penile prosthetic devices have been commonly used in patients with erectile dysfunction refractory to medical treatment over the past 50 years, and supplement the function of the erectile bodies to achieve penile rigidity, just like a real erection [7]. These devices can be either external or implanted. Despite the technological improvements in inflatable penile prosthesis in recent years, it still carries risk of complication including infection, mechanical problems, injury to bladder and surrounding tissues, herniation to the abdominal cavity causing intra-abdominal injuries or bowel obstruction [4,8]. Intestinal obstruction can be caused by the intraluminal migration of the reservoir of the penile prosthesis or fibrous strands between the herniated reservoir and intestinal loops. Bridectomy is a sufficient surgical intervention for the cases of bowel obstruction with mild operative findings, as was in our case. Resection of affected loops is required in case of bowel necrosis or perforation.

In conclusion, intestinal obstruction is a common surgical disorder, with various physical symptoms and signs from mild to severe. Therefore, the patients presenting with the clinical findings of intestinal obstruction or acute abdomen syndrome should be evaluated as a whole, especially in terms of their medical history. Although rare, AIO due to penile implant always should be kept in mind for an accurate management of such cases.

Competing interests

The authors declare that they have no competing interests.

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