

# Intestinal Obstruction Due to Endometriosis; Report of Two Cases Report

## *Endometriosis'e Bağlı İntestinal Obstrüksiyon; İki Olgu Sunumu*

LÜTFİ SOYLU<sup>1</sup>, SİBEL SARIKAYA<sup>2</sup>, OĞUZ UĞUR AYDIN<sup>1</sup>, SEZAI AYDIN<sup>1</sup>, FUAT ATALAY<sup>1</sup>

<sup>1</sup>Ankara Güven Hastanesi Genel Cerrahi Bölümü, Ankara-Türkiye <sup>2</sup>Ankara Güven Hastanesi Kadın Hastalıkları Ve Dogum Bölümü, Ankara-Türkiye

### ÖZET

Endometriosis, endometrial glandular ve stromanın uterin kavite dışında histolojik olarak mevcudiyeti ile karakterize kronik bir jinekolojik hastalıktır. Reprodüktif yaşlarda kadınlarda endometriosis prevelansının %10-15 arasında olduğu tahmin edilmektedir. Tüm endometriosis vakalarının %12-35'inde intestinal tutulum olduğu bildirilmiştir. Pelvik endometriosisi olan hastaların %5-15'inde barsak tutulumu bulunmaktadır ancak obstrüksiyona neden olan rektumun sirküferensiyel tutulumu nadirdir. Endometriosis olan hastalarda intestinal obstrüksiyon rekürren karın ağrısı ve barsak alışkanlıklarında değişikliğe neden olabilir.

Bu makalede intestinal obstrüksiyona sebep olan 2 endometrioma olgusunu sunmaktayız.

Nadir görülmekle birlikte intestinal endometriosis total barsak obstrüksiyonu nedeni ile akut karına sebep olabilir. Barsak obstrüksiyonu semptomları ve endometriosis hikayesi olan reprodüktif çağıdaki kadınlarda barsak

### ABSTRACT

Endometriosis is a chronic gynaecological disease characterized by the histologic presence of endometrial glands and stroma outside the uterine cavity. The prevalence of endometriosis in women of reproductive age is estimated to be 10-15%. The intestinal tract involvement is reported in about 12% to 35% of all cases of endometriosis. 5-15% of the patients with pelvic endometriosis have bowel involvement but the circumferential involvement of the rectum leading to rectal obstruction is rare. Intestinal obstruction in patients with endometriosis may result in recurrent abdominal pain and alteration in bowel habits.

We report that two case of intestinal obstruction due to endometrioma.

Despite its low frequency, intestinal endometriosis can cause acute abdomen due to total bowel obstruction. Endometrioma of the bowel should be considered in the differential diagnosis in women of reproductive age

Başvuru Tarihi: 29.12.2011, Kabul Tarihi: 06.03.2012

Dr. Lütfi Soylu  
Şimşek Sok No: 29 A. Ayrancı  
06540 Ankara - Türkiye  
Tel: 0312.4572473  
e-mail: lutfisoylu@hotmail.com

Kolon Rektum Hast Derg 2012;22:30-33

endometrioması ayırıcı tanıda akılda tutulmalıdır.

**Anahtar Kelimeler:** *Endometriosis, Mekanik intestinal obstrüksiyonu*

### Introduction

Endometriosis is a gynaecological disease defined by the histologic presence of endometrial glands and stroma outside the uterine cavity. Overall, endometriosis may affect 7-15% of women of reproductive age and usually results in various symptoms such as chronic pelvic pain, dysmenorrhoea and infertility.<sup>1</sup>

Endometriosis occurs throughout the pelvic cavity, including pelvic organs such as the ovaries, pelvic peritoneum, uterus, fallopian tube, vagina, rectovaginal septum, intestinal tract and the ureter. Extrapelvic endometriosis, although often asymptomatic, should be suspected when symptoms of pain or palpable mass occur outside the pelvis in a cyclic pattern. Endometriosis involving the intestinal tract, in particular the rectosigmoid colon, is the most common site of extragenital disease. Involvement of the intestinal tract is reported in about 12% to 35% of all cases of endometriosis.<sup>2,3,4</sup>

In most cases, it is asymptomatic and often clinically unimportant but, in more advanced forms of the disease, it may cause abdominal and back pain, abdominal distention, dysuria, hematuria, rectal bleeding, and bowel obstruction and perforation. Serious complications, such as complete intestinal obstruction and perforation, can be difficult to differentiate from those of inflammatory or malignant disease.<sup>5,6</sup>

This paper presents two cases of endometriosis, which is a rare cause of intestinal obstruction.

### Case 1

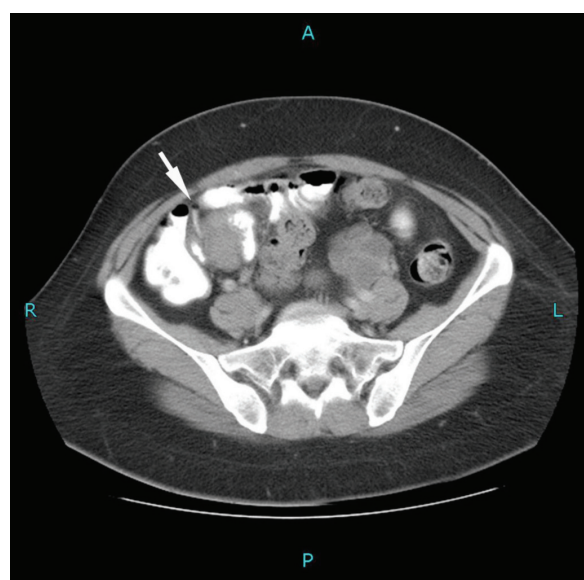
A 41 year-old woman was admitted our emergency department in May 2009 with abdominal pain, abdominal distension and nausea complaints, which had been present for four days. She experienced abdominal pain three years previously, which was found to be due to endometriosis observed in the pelvis and both ovaries during diagnostic laparoscopy. At that period, her CA125 levels were found to be elevated. She had three pregnancies and two deliveries. She also had a history of laparoscopic cholecystectomy.

presenting with symptoms of bowel obstruction and a history of endometriosis.

**Key words:** *Endometriosis, Mechanic intestinal obstruction*

On physical examination, the patient had hyperactive bowel sounds and tenderness in the right-lower quadrant. Initial laboratory investigations revealed CA-125 level of 54.1U/mL.

The patient was admitted our ward for follow-up and evaluation. She was consulted with the gynaecology department and a transvaginal sonography and an abdominal computerized tomography (CT) were performed. Transvaginal sonographic evaluation of the rectosigmoid space and adnexae were normal. Abdominal sonography and CT revealed diffuse masses and irregular increases in intestinal wall thickness and mesenteric lymphadenopathy in the right-lower quadrant (Figure 1).



**Figure 1.** *The view of increase in the bowel wall thickness and mesenteric lymphadenopathy in abdominal CT.*

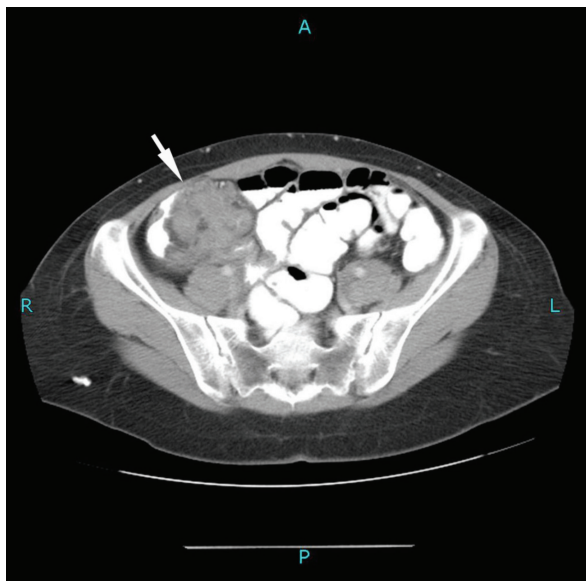
Emergency surgery was considered, due to her increased complaints during clinical follow-up, and an exploratory laparotomy was performed with the diagnosis of ileus. During surgical exploration, concurrent involvement of both cecum and sigmoid colon was observed, which consequently led to intestinal obstruction. A right

hemicolectomy and partial sigmoid resection was performed. Histopathological frozen examination of the resected specimens revealed endometriosis. Following surgery, the patient was treated with long-term GnRH agonists.

### Case 2

A 45-year-old female patient presented with abdominal pain. The patient frequently suffered from subileus attacks. She was previously treated many times with decompression with nasogastric and enema. She had undergone surgery for endometriosis 17 years previously. The patient reported periodic abdominal pain during the previous 3 years. She had two pregnancies and two deliveries.

Physical examination was normal. Initial laboratory investigations revealed CA-125 level of 40.37 U/mL. Right-lower quadrant abdominal CT identified an isodense, irregular, nodular solid formation of 35x25 mm (Figure 2).



**Figure 1.** The view of irregular and nodular solid mass in abdominal CT.

Surgical exploration revealed an intracecal mass. The patient underwent right-hemicolectomy. Also in this case, histopathological examination of the resected specimens revealed endometriosis.

### Discussion

Endometriosis is a chronic disorder characterized by the

implantation of endometrial tissues outside the uterine cavity. This disorder is benign; however, it exhibits cellular proliferation, cellular invasion and neoangiogenesis.<sup>7</sup> Although the exact prevalence of endometriosis in the general population is not clear, the prevalence of endometriosis in women of reproductive age is estimated to range between 10 and 15%.<sup>8</sup> Despite different hypotheses regarding the pathogenesis of endometriosis, it is widely accepted that angiogenesis plays an essential role in the growth and survival of endometriotic lesions.<sup>9,10,11</sup>

It's reported that 5% to 15% of patients with pelvic endometriosis have bowel involvement but that circumferential involvement of the rectum leading to rectal obstruction is rare.<sup>12,13</sup> Small and superficial serosal implants are often asymptomatic but, under cyclical hormonal influences, these implants may proliferate and infiltrate the bowel wall. Cyclical haemorrhage from endometrioma causes localised fibrotic thickening in the bowel wall and adhesion formation. This mechanism may explain intestinal obstruction with recurrent abdominal pain and alteration in bowel habits in patients with endometriosis.<sup>14</sup>

The preoperative diagnosis of colorectal involvement is often difficult. Although colonoscopy usually shows stenosis and mass, it is inaccurate in the diagnosis of bowel endometriosis. Since endometriotic lesions predominantly affect the serosa, muscularis and submucosa, the mucosa is rarely involved. Therefore, histological confirmation is essential in the diagnosis of this condition.<sup>15</sup> Currently, MRI is considered the best imaging technique for detection of intestinal endometriosis, with a reported sensitivity of 84% and a specificity of 99%.<sup>16</sup>

Currently, no clear guidelines exist for the management of colorectal endometriosis. Hormonal therapy is the first choice in cases without complications such as perforation, obstruction, bleeding. If malignancy cannot be excluded, and if there are signs of obstructive acute abdomen, surgical intervention should be considered.<sup>17,18</sup> Endometriosis tends to recur unless definitive surgery is performed. The recurrence rate is about 5% to 20% per year, reaching a cumulative rate of 40% after 5 years.<sup>19</sup> Because estrogen is known to stimulate the growth of endometriosis, in order to prevent recurrence, particularly in younger women for whom conservation

of fertility is important, resection of the bowel followed by hormonal therapy may be sufficient; otherwise, radical surgical procedures such as total abdominal hysterectomy and bilateral salpingo-oophorectomy, or bowel resection should be considered to treat severe endometriosis and to prevent recurrence, particularly in older patients. In conclusion, despite its low frequency, intestinal endometriosis can cause acute abdomen symptoms due

to total bowel obstruction. Endometriosis should always be considered in the differential diagnosis in women of reproductive age affected by symptoms of bowel obstruction and those with a history of endometriosis. Complete preoperative evaluation and definitive treatment must be performed. Therefore, such patients should be treated in a multidisciplinary setting.

### References

- Lapp T. ACOG issues recommendations for the management of endometriosis. *Am Fam Physician* 2000;62:1431-4.
- Weed JC, Ray JE: Endometriosis of the bowel. *Obstet Gynecol* 1987;37:727-30.
- Mac Afee C, Hard Greer H: Intestinal endome: a report of 29 cases and a survey of the literature. *J Obstet Gynecol Br Empire* 1960;67:727-30.
- Prystowsky JB, Stryker SJ, Vjiik:GT, *et al.* Gastrointestinal endomet: incidence and indications for resection. *Arch Surg* 1988;123:855-8.
- Duepree HJ, Senagore AJ, Delaney CP, *et al.* Laparoscopic resection of deep pelvic endometriosis with rectosigmoid involvement. *J Am Coll Surg* 2002;195:754-8.
- Thomassin I, Bazot M, Detchev R, *et al.* Symptoms before and after surgical removal of colorectal endometriosis that are assessed by magnetic resonance imaging and rectal endoscopic sonography. *Am J Obstet Gynecol* 2004;190:1264-71.
- Giudice LC, Tazuke SI and Swiersz L, *et al.* Status of current research on endometriosis. *J Reprod Med* 1998;43:252-62.
- Lebovic DT, Mueller MD and Taylor RN, *et al.* Immunobiology of endometriosis. *Fertil Steril* 2001;75,1-10.
- Shifren JL, Tseng JF, Zaloudek CJ, *et al.* Ovarian steroid regulation of vascular endothelial growth factor in the human endometrium: implications for angiogenesis during the menstrual cycle and in the pathogenesis. *J Clin Endocrinol Metab* 1996;31:112-8.
- Donnez J, Smoez P, Gillerot S, *et al.* Vascular endothelial growth factor (VEGF) in endometriosis. *Hum Reprod.* 1998;13:1686-90.
- Becker CM, Bartley J, Mechsner S, *et al.* Angiogenesis and endometriosis. *Zentralbl Gynacol* 2004;126:252-8.
- Yantiss RK, Clement PB, Young RH, *et al.* Endometriosis of the intestinal tract: a study of 44 cases of a disease that may cause diverse challenges in clinical and pathologic evaluation *Am J Surg Pathol* 2001;25:445-54.
- Singh KK, Lessells AM, Adam DJ, *et al.* Presentation of endometriosis to general surgeons: a 10-year experience. *Br J Surg.* 1995;82:1349-55.
- Nisolle M, Paindaveine B, Bourdin A, *et al.* Histological study of peritoneal endometriosis in infertile women. *Fertil Steril.*1984;42:696-703.
- Kavalloris A, Kohler C, Kuhne-Heid R, *et al.* Histopathological extent of rectal invasion by rectovaginal endometriosis. *Hum Reprod* 2003;18:1323-7.
- Bazot M, Darai E, Hourani R, *et al.* Deep pelvic endometriosis: MR imaging for diagnosis and prediction of extension of disease. *Radiology* 2004;232:379-89.
- Tapro H, Palazzi A, Pescatai M, *et al.* Rectal and small bowel endometriosis. *Tech coloproctol* 2008;12:391.
- Tomonari A, Seichiro Y. A case of endometriosis of the appendix with adhesion to right ovarian cyst presenting as intussusception of a mucocele of the appendix. *Surg Laparosc Percutan Tech* 2008: volume 18:no.6.
- Fedele L, Bianchi S, Di Nola G *et al.* M. The recurrence of endometriosis. *Am NY Acad Sci* 1994;734:358-64.