



GIANT SIGMOID DIVERTICULUM: A CASE REPORT

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Case report

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Abstract

The extension of the digestive tract in the form of a blunt sac that is lined with mucosa and connected to the lumen is called a diverticulum. Diverticula can be divided into two groups as congenital (true) and acquired (pseudo) diverticula. Most of the diverticula are seen in the descending colon and sigmoid colon, and in 65% of the cases, the disease is only in the sigmoid colon. Diverticula are usually 0.5 - 1 cm in size and are numerous. It can rarely be single and giant in size. In this presentation, we present a case of a giant sigmoid diverticulum originating from the sigmoid colon fixed to the bladder and uterocervical junction with radiological and surgical images in the light of the literature.

Key Words: Colonic diverticulosis, Congenital diverticulum, Diverticulitis

Özet

Sindirim kanalının, mukozaya ile döşeli, lümen ile bağlantılı, kör bir kese şeklindeki uzantısına divertikül adı verilir. Divertiküller genel olarak konjenital (gerçek) ve edinsel (pseudo) divertiküller olmak üzere iki gruba ayrılabilir. Divertiküllerin çoğu inen kolon ve sigmoid kolonda gözükmetedir ve olguların %65'inde hastalık sadece sigmoid kolondadır. Divertiküller genellikle 0,5-1 cm büyüklüğündedir ve çok sayıdadır. Nadir olarak tek ve dev boyutlarda olabilir.

Biz bu sunumda sigmoid kolon kaynaklı, mesane ve uteroservikal bileşkeye fikse olmuş dev sigmoid divertikül olgusunu radyolojik ve cerrahi görüntüleri ile literatür eşliğinde sunduk.

Anahtar Kelimeler: Divertikülit, Kolonik divertikülozis, Konjenital divertikül

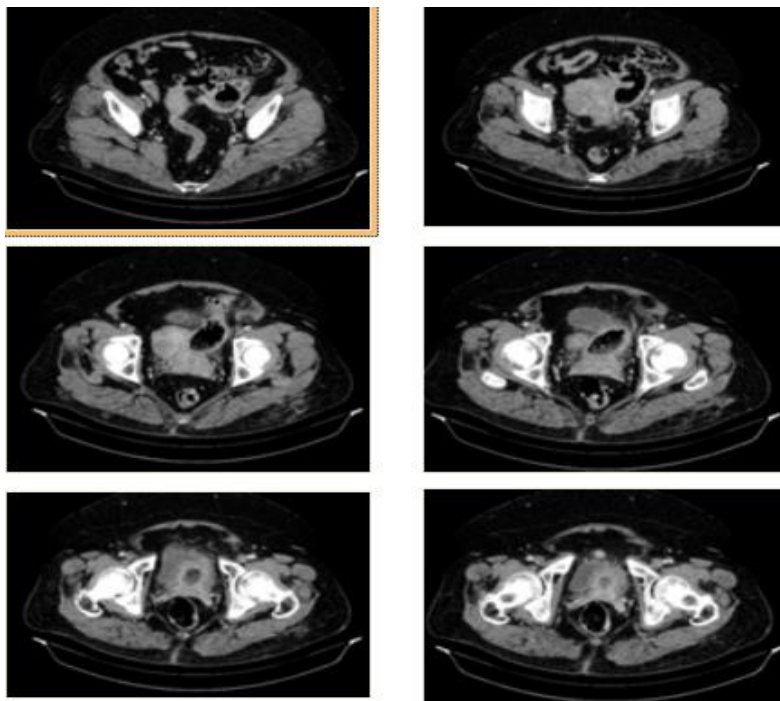
1. Introduction

Diverticula, which contain three layers of the intestinal wall, namely the mucosa, submucosa, and muscularis propria, are called congenital diverticula (type 2) and are very rare. In frequently observed acquired (type 1) diverticula, muscularis propria is either absent or rather thin and this group constitutes 87% of the cases. Acquired diverticula that can develop in any part of the digestive tract occur most frequently in the colon. They are generally 0.5 - 1 cm in diameter and are located in the sigmoid colon in 95% of the patients (Kumar et al.,2003; Frizelle and Choong,, 1998). Diverticula larger than 4 cm are called giant diverticula and are subjected to a separate classification. Type 1 giant diverticulum is formed by pushing the mucosa and submucosa without perforation, and the muscularis propria is cut at the junction of the colon with the diverticulum. Although the mucosa is completely intact, it is usually surrounded by chronic granulation tissue. Type 2 giant diverticulum describes focal perforation in the mucosa and submucosa and the abscess cavity associated with the lumen of the colon. The gap gradually expands with the valve effect and the effect of gas-producing organisms. Type 3 giant diverticula are true diverticula containing all layers of the intestine (McNutt et al., 1998). In this presentation, we present a 55-years-old female patient with type 2 giant diverticulum presenting with pelvic pain.

2. Case Report

A fifty-five-year-old female patient was admitted to the general surgery outpatient clinic with a complaint of distension that had been present for a year and severe pelvic pain that did not go away for about a month. Physical examination of the patient revealed tenderness in the left lower quadrant and suprapubic area. There was mild distension in the abdomen. The patient's laboratory findings were white blood cell (WBC): $14 \times 10^9/L$, hemoglobin (Hg): 13.3 g/dL, platelets (Plt): $304 \times 10^9/L$, C-reactive protein (CRP): 85 mg/L. CEA-125 and CEA 15-3 values were within the normal range. The endometrial wall thickness was found to be 7 mm in the ultrasound performed before the pain complaint started due to distension, and therefore the

pathology of endometrial curettage performed was evaluated as endometrial polyp. In the colonoscopy performed, multiple diverticula were detected in the descending colon and sigmoid colon. In computed tomography (CT), it was observed that the uterus size increased and there were several fibroids, the largest of which was 5 cm in diameter. At the level of the sigmoid colon, a diverticular formation, 8x5 cm in size, whose borders could not be clearly distinguished from the uterus was detected. Thickening of the sigmoid colon wall and contamination of the surrounding mesentery tissue were observed. In addition, numerous diverticular formations were found in the sigmoid colon and descending colon (Picture 1). Thereupon, the patient was hospitalized and antibiotherapy was started. She was taken into operation following the preparation for anesthesia. During the exploration performed during the operation, a giant colonic diverticulum originating from the sigmoid colon, 10 cm in diameter, fixed to the bladder wall and uterocervical region was observed. Anterior resection, partial bladder wall excision and TAH + BSO were performed on the patient. The lesion was excised en-block (Picture 2). In the post-operative period, the patient was discharged with full recovery.



Picture 1. Computerized tomography images of the giant diverticule



Picture 2. A giant colonic diverticulum originating from the sigmoid colon, fixed to the uterocervical region

3. Discussion

Giant colonic diverticula 93% originate from the sigmoid colon. For this reason, 45% is terminologically referred to as the giant sigmoid diverticulum. It is also called by different names such as giant colonic diverticulum (36%), giant gas cyst (9%), giant air cyst (5%). Although its major symptoms are abdominal mass and abdominal pain, complications such as perforation, diverticulitis, small bowel obstruction and / or adhesion, lower gastrointestinal bleeding may also be seen in some cases. Until 2004, only 135 giant colonic diverticulum cases were presented in the literature, and 93% of these patients had abdominal pain, 24% constipation, and 17% abdominal distension complaints (Sugihara et al., 2003; Steenvoorde et al., 2004). Our case also presented with complaints of abdominal pain and distention, in accordance with the literature. Giant colonic diverticula are usually observed in the seventh and eighth decades. Only 12% is seen under the age of 50. Although there is no difference in the ratio between men and women, it is more common in women (Kricun et al., 1980). Giant colonic diverticulum can be diagnosed with barium enema and direct radiography. CT can also be used for diagnosis. It is frequently seen on

CT as a thin-walled, well-demarcated, non-enhancing, air-filled lesion adjacent to the sigmoid colon, but there may be an increase in wall thickness and enhancement in conditions such as acute inflammation and diverticulitis (Sugihara et al., 2003). The presence of distal colonic malignancy should also be considered in progressively progressing giant colonic diverticula. Sasi et al. presented a case of giant sigmoid diverticulum that progressed due to rectal cancer (Sasi et al., 2010). The most frequently preferred procedures in the surgical treatment of giant colonic diverticula; resection + primary anastomosis (57.2%), resection + colostomy opening (11.4%), diverticulectomy (10.2%) and conservative (7.8%) treatment (Nigri et al., 2015). However, as in our case, additional surgical procedures may be required in complicated giant colonic diverticulum cases. Anterior resection + primary anastomosis + TAH + BSO + partial bladder wall excision was performed in our patient because of cervical and bladder wall involvement.

4. Conclusion

Giant colonic diverticula are extremely rare. Approximately 180 cases have been presented in the entire literature. We think that our case will contribute to the literature due to the difference in the surgical procedure secondary to its rarity and complication.

Conflicts of interest

The authors declare that there are no potential conflicts of interest relevant to this article.

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