Bowel Obstruction Caused by Colorectal Cancer Masquerading as Extrinsic Compression of Benign Gynecologic Tumors: A Report of Two Cases

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Objective: We report two cases of lower abdominal tumor with acute bowel obstruction. Preoperatively, gynecologic tumors were considered to be the cause. However, colorectal cancer was discovered during exploratory laparotomy.

Case Reports: An 81-year-old obese woman suffered from lower abdominal pain for some days, and there had been no stool passage for 2 weeks. Plain abdominal film revealed a dilated bowel lumen. A right ovarian cystic tumor was noted from pelvic sonography. The bowel obstruction was considered to be a result of external compression of the ovarian tumor. However, adenocarcinoma of the colon with lymph nodes and right ovary metastasis was confirmed by exploratory laparotomy. In the second case, a 45-year-old obese woman had problems with changed bowel habit (diarrhea and frequency) in the last 6 months. A huge uterus above the umbilicus with multiple myomas were revealed by pelvic sonography. Plain abdominal film showed a distended bowel lumen. Multiple huge exophytic myomatous masses in the uterus and metastatic adenocarcinoma to the left ovary were confirmed at laparotomy.

Conclusions: Although a lower abdominal tumor with bowel obstruction can be considered to be a result of a gynecologic tumor by physical examination and sonography, colorectal cancer should be included in the differential diagnosis. [Taiwanese J Obstet Gynecol 2004;43(1):50–52]

Key Words: lower abdominal tumor, bowel obstruction, ovarian tumor, colorectal cancer

Introduction

The majority of ovarian tumors manifest themselves in a similar manner. As enlargement of ovarian tumors occurs, there is progressive compression of the surrounding pelvic structures, producing symptoms such as urinary frequency, constipation, pelvic discomfort, and the feeling of heaviness. When the diameter of the mass exceeds 12–15 cm in the adult, it begins to rise out of the pelvis. At this stage of development, the patient is likely to notice abdominal enlargement, which she may attribute to weight gain or pregnancy during the reproductive years. Pain of various degrees is one of the most common initial symptoms of ovarian tumors, whether neoplastic or functional [1]. Intestinal colic, abdominal distension, vomiting and absolute constipation are classic features of acute intestinal obstruction [2]. Bowel obstruction associated with gynecologic tumor has unique features deserving wider recognition. Since the woman with malignancy has no characteristic appearance or symptoms that distinguish her from the numerous patients with the ordinary problems encountered in everyday office practice, careful evaluation, including testing for occult blood and appropriate endoscopic studies, should be performed in these patients.
Case Reports

Case 1
An 81-year-old obese woman suffered from lower abdominal pain for some days, and there had been no stool passage for 2 weeks. Physical examination showed a distended abdomen and local tenderness over the right lower quadrant area. Plain film showed a dilated bowel lumen. Pelvic sonography revealed a right adnexal cystic tumor 10 × 10 cm in size. Computed tomography (CT) scan showed a large thin-walled cystic mass (12 cm in diameter) in the pelvis (Figure 1). The lesion appeared to be connected to the ileocecal junction and to extend through the right lower abdomen into the inguinal canal. There was dilatation of the bowel loops, which may be related to ileus or partial bowel obstruction. At exploratory laparotomy, a 3 × 3 cm annular tumor in the sigmoid colon with total obstruction, cancerous peritonitis with omentum cancerous seeding, and a right ovarian cystic tumor 15 × 15 cm were noted. Hartmann’s procedure and bilateral salpingooophorectomy were performed. Microscopic examination showed adenocarcinoma of the colon with lymph node and right ovary metastasis.

Case 2
A 45-year-old obese woman had diffuse abdominal cramps and diarrhea for 2 days. She denied any underlying disease or surgical history. She had noticed progressive abdominal distension over the last 2 years and changed bowel habit (diarrhea and frequency) in the last 6 months. Physical examination was remarkable for a firm, enlarged, irregular, abdominal mass approximately 20 gestational weeks in size. Ultrasonography revealed an enlarged uterus with multiple leiomyomas. Plain abdominal film showed distended bowel loops with marked cutoff sign consistent with a mechanical obstruction. CT scan also showed a huge lobulated tumor, and the small intestinal loops and ascending colon were markedly dilated down to the sigmoid (Figure 2). Colonoscopy showed a mass lesion with a nodular surface, hyperemic changes with friable mucosa occupying the rectum, and a totally occluded rectal lumen. The initial clinical diagnosis made by general surgeons was bowel obstruction caused by the extrinsic compression of the huge leiomyomatous uterus. At exploratory laparotomy, a 25 × 20 × 20 cm uterus with multiple subserosal and intramural fibroids was identified. A 5 cm left multicystic ovarian mass was also found. A firm cauliflower solitary 5 × 6 × 4 cm mass which invaded the distal end of the rectum, just above the cul-de-sac area, was discovered. Loop sigmoid colostomy and subtotal hysterectomy with bilateral salpingooophorectomy were performed. The final pathology revealed multiple huge exophytic leiomyomas in the uterus and adenocarcinoma of the rectum metastatic to the left ovary (Figure 3). Postoperative radiotherapy was carried out.

Discussion

Gynecologists often refer cases to general surgeons for guidance if bowel obstruction from causes other than ovarian carcinoma are encountered. However, gynecologists and general surgeons seldom know the exact reason for the incidence of ileus caused by benign gynecologic tumors.

The classic features of acute intestinal obstruction include intestinal colic, abdominal distension, vomiting and absolute constipation. The etiology of intestinal obstruction has been extensively reviewed. There have been numerous reports in the general surgical literature delineating the cause of intestinal obstruction. However,
there is little gynecologic literature on this subject. The
few studies in gynecologic literature fail to assess pa-
tients on non-gynecologic services and, therefore, do
not assess the contribution of gynecologic pathologic
factors on all instances of intestinal obstruction.

A computerized search showed that intestinal
obstruction due to benign ovarian neoplasms only
constitute 0.2% of all patients admitted to the benign
gynecology section of the gynecology service. In the
study by Krebs and Goplerud, based on experience with
intestinal obstruction during a 25-year period in the
gynecology service of a large teaching hospital, 368
patients with acute mechanical intestinal obstruction
from 1960 to 1984 were collected [3]. Sixty-three pa-
tients (17.1%) had benign gynecologic disease account-
ing for 0.2% of all patients admitted to the benign gyne-
cology section of the gynecology service. Out of the 368
cases, there were only 6 (1.6%) with benign ovarian
tumors accounting for bowel obstruction. Patients with
clinical features of intestinal obstruction without a
history of prior laparotomy or physical evidence of a
hernia can be a diagnostic challenge. The most common
cause of intestinal obstruction in those groups was
malignancy [4]. Large bowel obstruction in patients
with gynecologic disorders was mostly due to extrinsic
compression from ovarian carcinoma. An intrinsic
process (colon cancer) was the single most common
cause of large bowel obstruction.

Adenocarcinoma of the colon masquerading as
primary ovarian neoplasia does occur. Ovarian tumors
that cause symptoms before the primary adenocar-
cinoma of the colon are large; an average size of 10 ×8 × 6 cm [5] has been reported. The reasons why these
tumors may attain this relatively large size while other
metastatic foci remain small or not apparent are, at
present, unknown. The usual presentation in these
patients is the finding of a pelvic mass, so clinical
attention is immediately directed toward a gynecolo-
gic evaluation. Although all patients have gastro-
intestinal complaints, their signs and symptoms are
often disregarded, either because of vagueness or be-
cause they are believed to represent advanced ovarian
malignant disease.

Uterine leiomyomas are the most common solid
pelvic tumor, occurring in at least 20% of women by
the age of 40 years. Most myomas cause no symptoms, but
many women have significant symptoms that warrant
therapy. Symptoms attributable to myomas can generally
be classified into three distinct categories: abnormal
uterine bleeding; pelvic pressure and pain; reproductive
dysfunction. Bowel obstruction due to leiomyoma is
extremely rare; according to a computerized search,
there have only been six such patients reported in the
English language literature since 1899 [6].

General surgeons and gynecologists must be very
careful when making a clinical diagnosis of bowel
obstruction caused by leiomyoma or benign ovarian
tumor. Although a lower abdominal tumor with bowel
obstruction can be considered to result from a gyneco-
logic tumor by physical examination and sonogra-
phy, the possibility of an intrinsic process (colon
carcinoma), which is the most common cause on a
general surgical ward, must first be ruled out. Careful
evaluation, including testing for occult blood and
appropriate endoscopic studies, should be performed
in these patients.

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