

Colonic Endometriosis Mimicking Sigmoid Cancer: A Case Report

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Abstract

Endometriosis is defined as the growth of endometrial glands and stroma outside the uterine cavity. Extrapelvic endometriosis is frequently seen in intestine. Intestinal endometriosis may present with colicky pain, nausea, vomit, constipation and gut obstruction which are non-specific.

This article reports a case of sigmoid endometriosis. This patient presented with difficult defecation without dysmenorrhea. The result of colonoscopic biopsy and whole abdominal CT scan could not rule out sigmoid colon cancer; therefore, exploratory laparotomy was performed. From the operative finding, sigmoidectomy with end to end anastomosis and total hysterectomy with bilateral salpingo-oophorectomy were performed in the single operative session without any serious post-operative complication. Histopathological study revealed that the patient had sigmoid colon endometriosis, adenomyosis and ovarian endometriotic cyst.

Keywords: Extrapelvic endometriosis; Intestinal endometriosis; Sigmoid colon tumor; Difficult defecation

Introduction

Endometriosis is defined as the growth of endometrial glands and stroma outside the uterine cavity [1]. Pelvic endometriosis is commonly found at pelvic peritoneum, on the surface of the uterus, adnexa and also intestinal serosa [2,3].

The most common site of extrapelvic endometriosis is intestine. Most of these lesions are asymptomatic and often diagnosed at operative time [4,5]. Sometimes, patients with intestinal endometriosis might present with non specific symptoms such as colicky pain, nausea, vomiting, constipation and gut obstruction [6]. Classically, the symptoms get worse during menses.

Intestinal endometriosis occurs in 5 -15% of endometriosis patients [1,7,8]. The common sites of intestinal endometriosis are rectosigmoid area (72%), rectovaginal septum (13%), small intestine (7%), caecum (3.6%) and appendix (3%) [9,10].

Many of intestinal endometriosis patients present with gastrointestinal symptoms; therefore, radiological examination and endoscopic examination of the intestinal tract are usually performed as the initial investigation [11]. The results often lead to misdiagnosis as various inflammatory lesions or tumor of intestine [11,12,13].

If intestinal endometriosis is identified, complete excision of the lesion offers good long term symptomatic relief. In some cases, segmental resection of the intestine might be performed for complete removal of all lesions [4].

Case Report

A 36 years old woman presented with difficult defecation for a year. She neither had hematochezia nor other gastrointestinal symptoms. She had regular menstruation without dysmenorrhea. Her past history revealed an uncomplicated cesarean section 15 years ago. She neither used hormonal contraception nor other medications. After completion of history taking and physical examination, colonoscopy was performed by a colorectal surgeon. The result of colonoscopy suspected intramural mass at sigmoid colon and biopsy was performed. The histopathological result of the biopsy specimen showed non-specific change (Figure 1). Therefore, the whole abdominal CT scan was performed and heterogeneous enhancing mass at anterior wall of sigmoid colon and focal eccentric wall thickening at distal sigmoid

colon were identified. Moreover, multiloculated cystic lesions in both adnexa and multiple small round shape hypodensity lesions (less than 1.5cm) in both lobes of liver were identified.

The patient was counseled for surgical intervention because the sigmoid colon cancer was suspected. Hand assisted laparoscopic sigmoidectomy was performed and a gynecologist was consulted for evaluation and management of the adnexal mass in the same operation. Operative finding revealed an intramural sigmoid colon mass which was 3x 4cm in diameter. The uterus was globular shaped and enlarged 10 week size. There was a right ovarian cyst 5 centimeter in diameter contained chocolate colored content. Cul-de-sac was obliterated

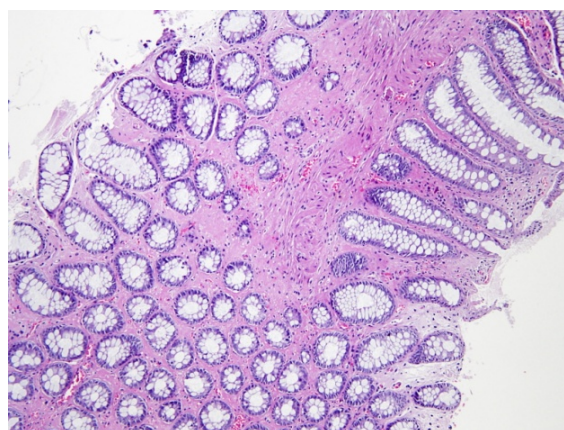


Figure 1: Histopathology of colonic biopsy shows normal-appearing colonic mucosa with non-specific change. (Hematoxylin and Eosin stain x 100).

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Received June 02, 2011; **Accepted** July 08, 2011; **Published** October 29, 2011

Citation: Oranratanaphan S, Amatyakul P, Somran J, Thumumnuaysuk S (2011) Colonic Endometriosis Mimicking Sigmoid Cancer: A Case Report. Gynecol Obstetric 1:101. doi:10.4172/2161-0932.1000101

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and multiple brown spots were scattered on pelvic peritoneum. Uneventfully, total hysterectomy with bilateral salpingo-oophorectomy was performed by the gynecologist and sigmoidectomy with end to end anastomosis was performed by the colorectal surgeon in the same operative session. The histopathological study showed adenomyosis of the uterus, pelvic endometriosis, a right ovarian endometriotic cyst, and endometriosis of the sigmoid colon. The endometriotic foci involved nearly entire wall of the sigmoid colon except for colonic mucosa (Figure 2A and 2B). The endometrial stroma within the endometriotic foci was highlighted by immunostaining for CD10 (Figure 3A and 3B).

There was no serious post-operative complication. During the follow up visit, the patient's symptom was satisfactory relief. She received post operative hormonal suppression with GnRH agonist for 6 months and add back therapy. There was no evidence of recurrence until her recent visit.

Discussion

Endometriosis is a common gynecological disorder with a multiple etiologies. Sampson theory and coelomic metaplasia are the most common etiologies to be considered. Endometriotic implants are most commonly found in the pelvis [14,15,16]. The gastrointestinal endometriosis is found 5-15% in women undergone laparotomy or laparoscopy for endometriosis related symptoms. The common site of involvement is the serosa or muscular layer of the gastrointestinal



Figure 2A: Intramural thickening of the sigmoid colon (Gross).

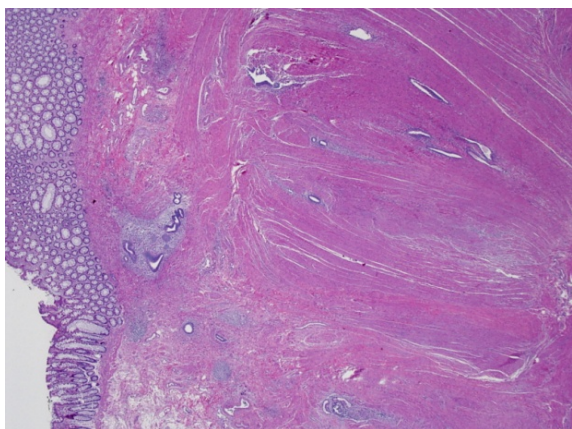


Figure 2B: The endometriotic foci involving nearly entire thickness of the colonic wall with sparing colonic mucosa (Hematoxylin and Eosin stain x 20).

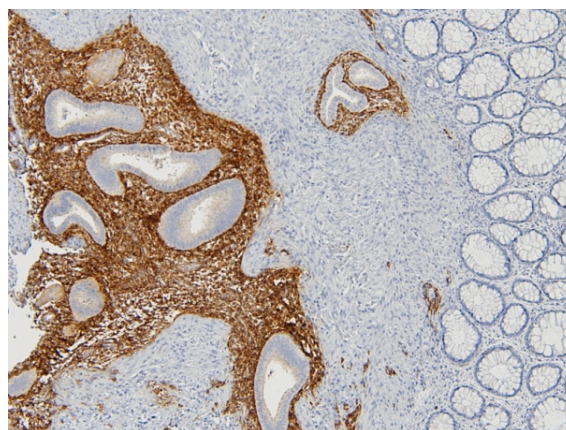


Figure 3A: The presence of benign endometrial glands and the stroma within submucosa (Hematoxylin and Eosin stain x 100).

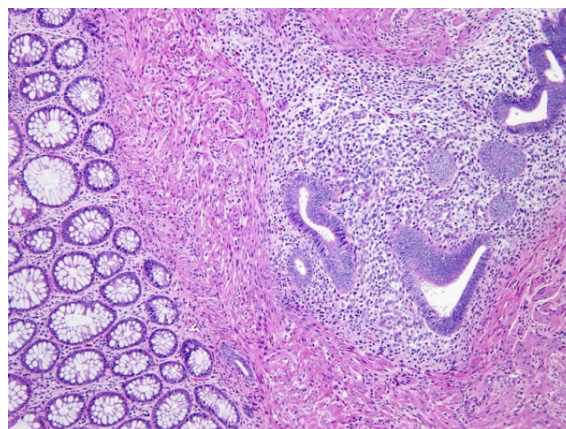


Figure 3B: The endometrial stroma within submucosa is demonstrated by specific monoclonal antibody of CD10 (CD10 immunohistochemical stain x 100).

tract but the mucosa is rarely involved [17]. The symptoms of intestinal endometriosis include abdominal pain, bloating, gut obstruction and rectal bleeding [18]. Symptoms are cyclical in approximately 40% of the patients and usually aggravate during menses [19]. This patient had difficult in defecation which was one of the intestinal endometriosis symptoms but she did not have dysmenorrhea and her defecation problem was not aggravated by menstruation.

The preoperative diagnosis of intestinal endometriosis is not easy to be performed because its manifestation can be confused with other inflammatory diseases or tumor. An endoscopic biopsy has limited role because the mucosal layer is rarely affected by endometriosis [20]. Other diagnostic examinations such as CT scan, MRI and Barium enema have inconclusive benefits [21,22]. As in this patient, the investigations could not reveal the intestinal endometriosis and misled to sigmoid colon cancer.

Treatments of intestinal endometriosis depend on the clinical symptoms and operative findings. Resection of the affected intestine is needed for endometriosis related intestinal obstruction. After excision deeply infiltrated endometriosis lesions, 60-100% of patients have been reported an improvement in endometriosis related pain. Recently, there had been reports of successful laparoscopic management of intestinal endometriosis and deep infiltrated endometriosis. Non penetrating lesions can be excised and followed by estrogen suppression such

as GnRH agonist or aromatase inhibitor [23,24], but the efficacy for treatment of intestinal endometriosis is unclear. In general, the definite treatment of endometriosis is removal of both ovaries and other affected lesions. The disease can recur, especially in those treated with cyclic hormonal replacement therapy [25]. In addition, the presence of malignancy should be ruled out from those lesions on affected organs [20]. Women who have severe or intestinal endometriosis should be treated in a center with expertise in this field [26].

In this case, the operative findings revealed adenomyosis, ovarian endometriotic cyst and the lesion in the sigmoid colon involved entire muscular layer except mucosa. Those finding was most likely intestinal endometriosis. The histopathological examination was used to confirm the diagnosis. Sigmoidectomy and end to end anastomosis with total hysterectomy and bilateral salpingo-oophorectomy were performed as definite treatment for endometriosis. After the operation, the patient received GnRH agonist for 6 months with adds back therapy and no evidence of recurrence until report time (8 months).

Conclusion

Intestinal endometriosis should be considered for the differential diagnosis in reproductive age women with gastrointestinal symptoms. It may aggravate by menstruation. Some investigations and imaging for diagnosis of intestinal endometriosis still have inconclusive benefit. Multidisciplinary team approach is important for management intestinal endometriosis patients. Post-operative hormonal suppression may be required in some occasions.

References

1. Robboy JR, Anderson MC, Russel P (2002) Endometriosis. Pathology of female reproductive tract. London: Churchill Livingstone.
2. Hesla JS, Rock JA (1997) Endometriosis. Te Linde's Operative Gynecology. Lippincott-Raven Publishers, Philadelphia.
3. Bergqvist A (1992) Extragenital endometriosis. A Review. *Eur J Surg* 158: 7-12.
4. Landi S, Barbieri F, Fiaccavento A, Mainardi P, Ruffo G, et al. (2004) Preoperative double-contrast barium enema in patients with suspected intestinal endometriosis. *J Am Assoc Gynecol Laparosc* 11: 223-228.
5. Prystowsky JB, Stryker SJ, Ujiki GT, Poticha SM (1988) Gastrointestinal endometriosis. Incidence and indications for resection. *Arch Surg* 123: 855-888.
6. Yildirim S, Nursal TZ, Tarim A, Torer N, Bal N, et al. (2005) Colonic obstruction due to rectal endometriosis: report of a case. *Turk J Gastroenterol* 16: 48-51.
7. Kanthimathinathan V, Elakkary E, Bleibel W, Kuwajerwala N, Conjeevaram S, et al. (2007) Endometrioma of the large bowel. *Dig Dis Sci* 52: 767-769.
8. Clement PB (2002) Disease of peritoneum. Blaustein's pathology of the female genital tract. (5th edn) Springer-Verlag, New York.
9. Ribeiro PA, Rodrigues FC, Kehdi IP, Rossini L, Abdalla HS, et al. (2006) Laparoscopic resection of intestinal endometriosis: a 5 year experience. *J Minim Invasive Gynecol* 13: 442-446.
10. Macafee CH, Greer HL (1960) Intestinal endometriosis. A report of 29 cases and a survey of the literature. *J Obstet Gynecol Br Emp* 67: 539-555.
11. Hoang CD, Boettcher AK, Jessurun J, Pambuccian SE, Bullard KM (2005) An unusual rectosigmoid mass: endometrioid adenocarcinoma arising in colonic endometriosis: case report and literature review. *Am Surg* 71: 694-697.
12. Varras M, Kostopanagiotou E, Katis K, Farantos Ch, Angelidou-Manika Z, et al. (2002) Endometriosis causing extensive intestinal obstruction simulating carcinoma of sigmoid colon: a case report and review literature. *Eur J Gynaecol Oncol* 23: 353-357.
13. Yantiss RK, Clement PB, Young RH (2000) Neoplastic and pre-neoplastic changes in gastrointestinal endometriosis: a study of 17 cases. *Am J Surg Pathol* 24: 513-524.
14. Olive DL, Schwatz LB (1993) Endometriosis. *N Engl J Med*. 328: 1759-1769.
15. Zwas FR, Lyon DT (1991) Endometriosis. An implant condition in clinical gastroenterology. *Dig Dis Sci* 36: 353-364.
16. Samper ER, Slagle GW, Hand AM (1984) Colonic endometriosis: its clinical spectrum. *South Med J* 77: 912-914.
17. Levitt MD, Hodby KJ, van Merwyk AJ, Glancy RJ (1989) Cyclical rectal bleeding in colorectal endometriosis. *Aust N Z J Surg* 59: 941-943.
18. Yantiss RK, Clement PB, Young RH (2001) Endometriosis of the intestinal tract: a study of 44 cases of a disease that may cause diverse challenge in clinical and pathological evaluation. *Am J Surg Pathol* 25: 445-454.
19. Jubanyik K, Comite F (2008) Extrapelvic endometriosis. *Obstet Gynecol Clin North Am* 24: 411-440.
20. Kelly P, McCluggage WG, Gardiner KR, Loughrey MB (2008) Intestinal endometriosis morphologically mimicking colonic adenocarcinoma. *Histopathology* 52: 510-514.
21. Redwine DB, Wright JT (2001) Laparoscopic treatment of complete obliteration of the cul-de-sac associated with endometriosis: long term follow-up of en bloc resection. *Fertil Steril* 76: 358-365.
22. Coronado C, Franklin RR, Lotze EC, Bailey HR, Valdes CT (1990) Surgical treatment of symptomatic colorectal endometriosis. *Fertil Steril* 53: 411-416.
23. Preziosi G, Cristaldi M, Angelini L (2007) Intestinal obstruction secondary to endometriosis: a rare case of synchronous bowel localization. *Surg Oncol* 16: s161-163.
24. Ferrero S, Abbamonte LH, Anserini P, Remogida V, Ragni N (2005) Future perspectives in the medical treatment of endometriosis. *Obstet Gynecol Surv* 60: 817-826.
25. Matorras R, Elorriaga MA, Pijoan JI, Ramon O, Rodriguez- Escudero FJ (2002) Recurrence of endometriosis in women with bilateral adnexectomy (with or without total hysterectomy) who received hormone replacement therapy. *Fertil Steril* 77: 303-308.
26. Al-Talib A, Tulandi T (2010) Intestinal endometriosis. *Gynecol Surg* 7: 61-62.