

Rectosigmoid endometriosis: diagnosis and surgical management

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Summary

The recurrence of endometriosis varies from 6% to 10% and, among the non-gynaecological sites, the bowel is involved in 12%-37%. Various symptoms, such as dysmenorrhea, dyspareunia, chronic pelvic pain, diarrhoea, constipation, cyclic rectal bleeding, colic-abdominal pain up to intestinal occlusion characterize this pathology. Surgery seems to be the best treatment especially for gastrointestinal symptoms; conservative surgery should be performed, particularly in young patients.

Four cases of intestinal endometriosis were reevaluated.

Introduction

It is well known that endometriosis is the presence of endometrial tissue in various ectopic sites. According to the medical literature, the occurrence of this pathology varies from 6% to 10%, but the incidence of endometrial tissue ectopy in fertile women, including endometriosis foci found during pelvic laparotomy, may reach 20-30%. Among the non-gynaecological sites, the bowel is of particular importance for diagnostic and therapeutic purposes, being involved in 12%-37%; the most frequently involved is the sigmoid colon (70%), then the rectum (51%), the ileum (11%), the appendix (9%) and the caecum (6%); cases involving the jejunum have also been reported [1, 2, 3]. As early as in 1909, Meyer described a case of intestinal endometriosis with bowel obstruction, a frequent complication in more advanced forms, which affects above all the rectosigmoid tract [2, 4].

The hypothetical etiopathogenetic mechanisms which have earned major approval are the implantation of endometriotic nodes a) through the lymphatic and vascular systems, b) by menstrual transtubal transport, or c) by mechanical transport during surgery. Factors favoring implantation include: increased menstruation reflux, I.U.D., hormonal factors and an immunologic deficiency mostly of the macrophagic system [5].

Four cases of intestinal endometriosis are considered – the first two were already presented at the 69th S.I.G.O. (Italian Society of Gynaecology and Obstetrics) Congress, 1993 – which gave us the opportunity to reconsider the diagnostic and therapeutic problems related to this pathology.

Clinical cases

CASE 1

A 44-year-old woman, PARA 2002, with a history of dyspareunia, persistent constipation, pollakiuria, pain in the right iliac

fossa and ingravescent dysmenorrhea, was hospitalized for pelvic and retrouterine mass of undetermined nature. She had no previous laparoscopic surgery.

The ultrasonography did not reveal any structural alteration of the pelvic organs. A barium enema radiogram revealed an irregularity in the parietal profile of the distal sigmoid tract and endoscopic examination confirmed partial stenosis of the intestinal lumen about 20 cm from the anus due to an external mass. Macroscopic examination at laparotomy revealed a thickening of the mesentery and of the sigmoid walls, with a fibrous aspect and small serosal nodules. The resected specimens for intraoperative pathologic examination revealed localisation of endometriosis in the serous, subserous and in the outer layer of the muscle of the sigmoid colon. A segmentary resection of the distal sigmoid colon was performed with end-to-end anastomosis, appendectomy and excision of the endometriotic localizations on the pelvic peritoneum.

The final pathologic examination of the surgical specimens revealed many sites of endometriosis on the mesenteric side of the walls. The appendix was negative.

CASE 2

A 48-year-old woman, PARA 0000 with a medical history of recurring pelvic pain was admitted to our Institute. In the past she underwent laparoscopy and was diagnosed with 2nd degree pelvic endometriosis (according to the American fertility Society Classification, 1985). She underwent medical therapy with Danazol without clinical benefit. Pelvic ultrasonography revealed a 4 cm submucosal fibroma of the uterine posterior wall and a 3 cm right ovarian cyst. The barium radiogram revealed a marked dolichosigmoid colon and stenosis of the distal tract of the sigmoid colon. Colonoscopy confirmed partial stenosis of the intestinal lumen at about 18 cm from the anus by an external mass, with uninjured mucosa, surgery confirmed the ultrasound findings and revealed a complete obliteration of the Douglas pouch due to a retrouterine mass joined to the distal sigmoid tract.

The intraoperative pathologic examination confirmed the clinical diagnosis of endometriosis spreading to the intestinal muscular wall. Abdominal hysterectomy with bilateral-oophorectomy and resection of the intestinal tract (about 15 cm) with end-to-end anastomosis were carried out. Final pathological examination of the surgical specimens confirmed uterine fibroleiomyomatosis. An ovarian cyst revealed by ultrasound corre-

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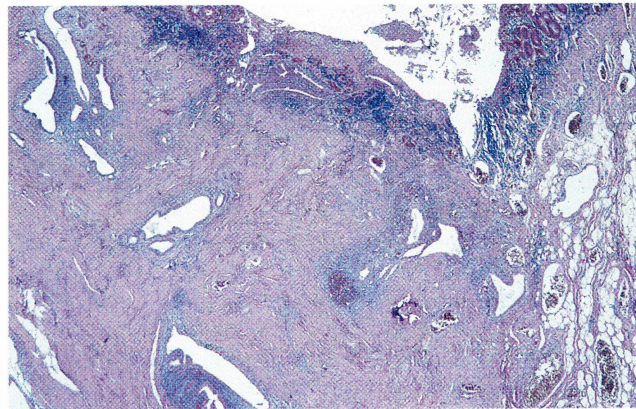
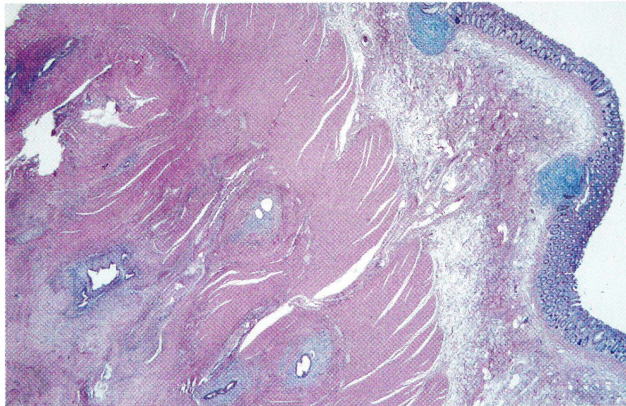
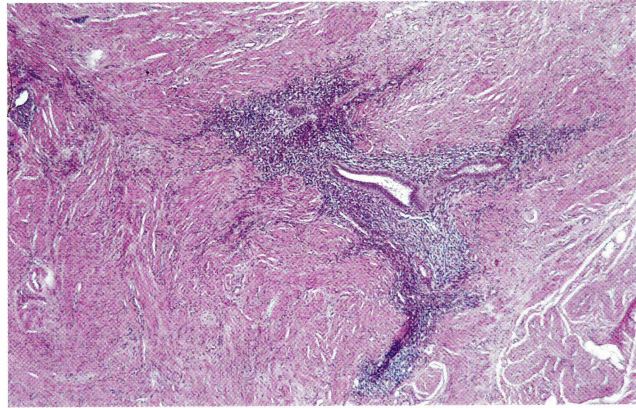
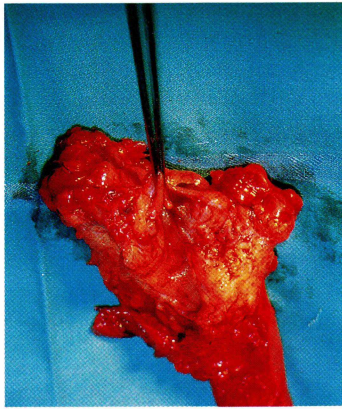


Figure 1. — Tract of recto-sigmoid colon with evident areas of infiltration of the endometriotic process.

Figure 2. — Endometriotic focus within the intestinal muscular wall.

Figure 3. — Panoramic view of multiple endometriotic foci invading the external intestinal muscular wall.

Figure 4. — Endometriotic foci extending to the submucosa and up to the mucosa with superficial erosion.

sponded to an unilocular mucinous cystadenoma. Three small cystic nodes due to mesothelium inclusion deeply infiltrated the ovary. Endometriotic foci were found in the intestinal tract on the mesenteric side of the muscular wall extending up to the mucosa.

CASE 3

A 35-year-old woman, PARA 2002, with a clinical history of periodical abdominal pain and left sciatica in the premenstrual phase was brought to our attention. In 1995 she underwent a hysteroscopic myomectomy and in 1996 a laparotomic ablation of endometriotic nodes. In 1997, during a gynaecological examination, a hard and motile formation through the posterior fornix, but adherent to the posterior-lower wall of the rectum, was found. Ultrasound revealed a posterior node in the Douglas pouch. Rectoscopy revealed stenosis due to an external mass 10 cm from the anal verge. Laparotomic examination of the abdominal cavity showed an endometriotic node in the recto-vaginal septum, a 5 cm diameter node in the posterior wall of the rectum nearly fixed to the sacrum hollow and an endometriotic node occupying the entire thickness of the rectum causing stenosis. The endometriotic node of the recto-vaginal septum was surgically removed with about a 27 cm resection of the recto-sigmoid, end-to-end anastomosis and appendectomy. At macroscopic examination the recto-vaginal septum tissue appeared fibrous and formed a para-rectal mass. Pathological examination of the surgical specimens revealed endometriotic nodes of the recto-vaginal septum spreading to the rectum up to submucosa with hypertrophy and fibrosis of the wall and stenosis of

the lumen. Endometriotic nodes were also found in the neuromuscular bundles and focally in the perineural spaces.

CASE 4

A 28-year-old woman, PARA 0000, was admitted for pelvic pain and perimenstrual tenesmus and constipation. She had a previous laparotomy for a pelvic-tubal abscess, peritoneal cleaning and decompressive colostomy of the transverse colon. The patient underwent surgery for an endometriotic cyst on the left ovary, bilateral ovarian biopsy, resection of a tract of the sigmoid colon firmly adhering to the uterus, detachment of the colostomy and a small resection of the exteriorated colon tract; colo-colonic and colo-rectal anastomosis and appendectomy. The histologic examination of the surgical specimen revealed multiple endometriotic nodes of the colic wall and the pericolic fibroadipose tissue.

Discussion and Conclusions

The course of intestinal endometriosis can be silent if confined to the outer layer of the wall and devoid of infiltrative growth. Nevertheless, under cyclic hormonal influence, this tissue can proliferate and invade the intestinal walls. Therefore, advanced endometriosis represents the active and progressive form of this disease which manifests itself in a serious, deeply penetrating form. Invasion of the intestinal wall represents a severe

stage of endometriosis which in every classification is considered the highest degree of the disease. Three types of infiltrating endometriosis can be considered: in type I the general pelvic anatomy is preserved, in type II it is grossly altered with retractions involving the bladder and intestine; in type III deep nodes occlude the Douglas pouch [1, 4, 6].

Among the cases of intestinal endometriosis, in about 2.2% complete intestinal occlusion has been documented [1, 7].

Clinical symptoms of endometriosis include dysmenorrhea, dyspareunia, chronic pelvic pain and sterility; frequency and seriousness are related to the site and extension of the disease. Intestinal localization is one of the most atypical manifestations of this pathology and it may clinically present itself with diarrhoea alternated with constipation, tenesmus and colic abdominal pain up to intestinal occlusion in advanced cases. The development of endometrial tissue in the intestine produces a progressive fibrosis which restricts the lumen up to its occlusion. Less frequently it presents as cyclic rectal bleeding. Perforation is a rare complication of intestinal endometriosis. Other complications include appendical mucocele, intramural hematoma, volvulus, intussusception, acute appendicitis and development of a malignant neoplasm [1, 3, 8, 9, 10, 13].

Therefore, differential diagnosis with other intestinal pathologies, particularly inflammatory and neoplastic ones, is often difficult. Appearance or recurrence of symptomatology and eventually rectal bleeding and menstrual and perimenstrual periods are primary indicators of this disease [3, 11].

The diagnosis of intestinal endometriosis is often difficult because even though it requires careful endoscopic evaluation of the patient with a history and clinical examination suggesting endometriosis, it is only by surgery and frozen section, that a definitive diagnosis can be reached [15, 16].

The treatment must therefore attempt to relieve the painful symptoms and stop the progression of the disease considering the age of the patient, the stage of the disease and the gravity of the symptoms.

Today, medical treatment of endometriosis – such as Danazol, GnRH-Analogues – may be a useful therapy in patients with small lesions for a temporary remission of the pain but not as a cure of the disease [15]. Surgery is the first choice of treatment, especially in the presence of gastrointestinal symptoms. In fact, besides offering an exact diagnosis, it permits the removal of the endometriotic implants, relief of the pain and the reconstruction of the pelvic anatomy. The most suitable type of surgery depends on the extension of the disease, its dimensions, site and relation with the endopelvic organs. Even if laparoscopy is useful for diagnosis and in initial stages for therapy, the presence of strong adhesions and deep anatomic localizations frequently render laparoscopy inaccessible and laparotomic surgery inevitable [17]. Surgery, even when performed in the most conservative way, requires intestinal resection in 0.5-2.5% of the cases due

to the gravity of the lesions. Considering the young age of women suffering from this pathology, the surgical procedure, although aggressive, should attempt to restore the continuity of the resected intestinal tract with end-to-end anastomosis avoiding the psychophysical discomfort caused by a colostomy.

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