Case report

Intestinal and pelvic endometriosis: psychological and surgical considerations

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Abstract: Bowel endometriosis is an uncommon disease that can provoke severe symptoms including intestinal obstruction. The disease generally affects young women, and, often has psychological implications since it is associated with severe pain and infertility. Our patient, a 40-year-old woman, suffered from rectal bleeding, dysmennorrhea, and episodes of intestinal obstruction, as well as anxiety and depression documented by various psychological tests. Surgery revealed a tumor-like mass below the rectosigmoid junction and endometriotic nodules on the right ovary and ileum. The rectosigmoid colon was resected and the nodules removed. The patient, who had an uneventful postoperative course, is currently in good physical condition but is still depressed and receiving hormonal therapy and psychotherapy. A combined surgical-psychological-hormonal approach may be the most effective way to treat intestinal and pelvic endometriosis.

Key words: Endometriosis; Rectosigmoid colon; Intestinal resection; Ovarian cyst; Psychological evaluation; Trait and state anxiety; Drawing tests.

INTRODUCTION

Endometriosis occurs in women of reproductive age and is most commonly found on the peritoneal surface of the reproductive organs. The prevalence of the disease in the general population ranges between 1 and 8% according to different series.[1] The intestine is affected in less than 20% of patients suffering from gynaecological endometriosis. In the rectosigmoid colon, endometriosis may mimic either a neoplasm or inflammatory bowel disease and may even cause intestinal obstruction.

Nearly half of the patients with endometriosis suffer from infertility due to hormonal defects. The hormonal treatment of the disease prevents pregnancy. This problem, together with symptoms, such as severe pelvic pain, may affect the patient's quality of life and cause mental illness.

The aim of this paper is to report a case of large bowel endometriosis unusually affecting the entire circumference of the rectum and causing anxiety and depression. Major surgery and psychotherapy were needed to successfully treat the patient.

CASE REPORT

Clinical History: A 40 year-old woman was referred to our Unit after several episodes of intestinal obstruction. She had a long standing history of severe pelvic pain during her menstrual periods and was diagnosed with pelvic endometriosis at age 25. After she married she attempted to become pregnant without success.

She had undergone two operations for ovarian endometriosis cysts in the past 7 years and complained of rectal bleeding and constipation during her menstrual period. A colonoscopy showed a tumour-like mass below the rectosigmoid junction, 9 cm above the anal verge. Anorectal and trans-vaginal ultrasound were performed by means of a B & K machine (Bruel & Kiaer, Aarhus, Denmark) using a 10 mHz probe and did not show any localization of endometriosis within the anal canal and lower to middle rectum; the recto-vaginal septum was free of disease; the anal sphincters were intact.

Psychological History: The patient had been adopted when she was 1 week old. She never knew her biological parents and her adoptive father died 3 years before she was admitted to our Unit. She expressed the strong desire to know her natural parents and was taking oral antidepressant drugs (Duloxetine, 30 mg twice a day).

She had a psychological consultation at our Unit and underwent STAI X1 and STAI X2 tests (C.B.A.) aimed at evaluating her state and trait anxiety levels.[2] A significant trait anxiety level of 79.8 (normal value below 50) was found. State anxiety level was 47.9 (normal value below 50). These findings suggested that anxiety was a stable trait of her personality. The Depression scale consisting of 24 items was administered,[3] which showed a significant depression reaching a score of 87.6 (normal value below 50).

Others tests were administered, such as the draw-the-family-test,[4] the rain-test, the tree-test,[5] and the draw-a-person-test [6] aimed at evaluating socio-emotional adaptation (Figs. 1, 2). These tests showed that the patient had difficulties with interpersonal relationships, a high insecurity and immaturity levels, and poor emotional defences.

Surgical Intervention: Once the peritoneum was opened, an obstructive hard whitish mass was found below the rectosigmoid junction, without any significant dilatation of the proximal sigmoid. An endometriosis cyst of the right ovary, 2 cm in diameter, was coagulated with diathermy. A rectosigmoid resection was carried out with preservation of the superior rectal artery and a latero-terminal anastomosis was performed at 8 cm above the anal verge using a 29 mm circular stapler (Ethicon Endosurgery, Cincinnati, Ohio, USA) (Fig. 4). The specimen was sent to the pathologist and a typical histology of rectal endometriosis was found. Two smooth and soft chocolate-like nodules, 1 cm in diameter, were found and excised by diathermy at the level of the terminal ileum, and then sent to the pathologist, who diagnosed them as endometriosis cysts.

The postoperative course was uneventful. At 4-month follow-up the patient is in good physical health, her bowel motions are normal and she has no anal incontinence and no constipation, but still has marked symptoms of depression. She is receiving psychological counselling and has begun hormonal therapy aimed at preventing disease recurrence.

DISCUSSION

Psychological Considerations: Endometriosis is a disabling illness that affects about 8 million women worldwide.[7] Endometriosis compromises a woman's quality of life. Maintaining a regular job, or getting pregnant can be

Fig. 1. – The rain-drawing test shows that the patient is lacking of defence, as she did not drew any umbrella to protect her body under the rain. The attempt of the patient to stop the rain with her arms makes the drawing rather dramatic.

difficult. Dyspareunia during sexual intercourse is common. Chronic pelvic pain causes emotional and behavioural changes. Symptoms may be both vegetative and cognitive-affective; so because of pain caused by endometriosis the role of the woman changes both within her family and within society.[8]

Women who suffer from chronic pelvic pain frequently have abnormal psychological profiles, that can include a history of depression and/or a difficult family life. Moreover, the degree of pain reported by women with endometriosis is frequently not related to disease severity.[9] Therefore the success or failure of treatment for pain due to endometriosis depends on a multidisciplinary approach.

Chronic pain does not resolve completely with pharmacological treatment and causes psychological disorders, mostly depression. Patients are likely to complain that nobody

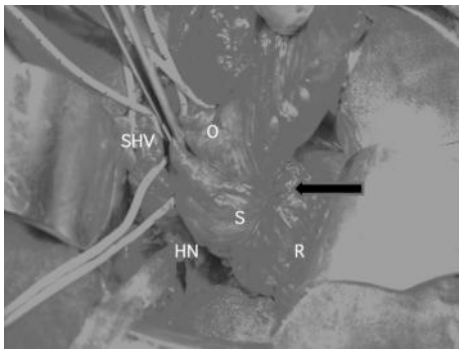

Fig. 3. – Intra operative field showing stenosis tumor-like endometriosis just below the rectosigmoid junction the surgical dissection has been commenced and some structures has been mounted on rubber band loop i.e. Ovarian vessels , SHV superior haemorroidal vessels which has been separated to ensure a better vascular supply, HN Hypogastric Nerve, S sigmoid, R rectum.

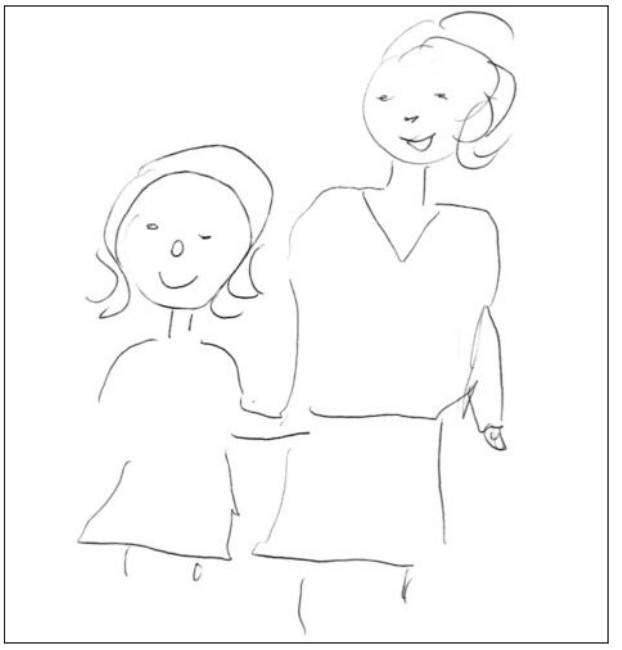

Fig. 2. – The draw-the-family test shows several abnormalities, such as wavering lines and body deformities (i.e. lack of legs and arms). Moreover the patient, despite being 40 years old, represented herself as a child which means she felt frail and insecure.

can understand their painful and troublesome condition. Endometriosis may frustrate a patient's expectations, cause loss of self-esteem, alteration of body image and, ultimately, social isolation. The patient may at first feel anger, which if not treated is likely to develop into aggressive behaviour, and increase the patient's social isolation.

Our patient presented many findings of the psychological pattern that has been associated with endometriosis i.e depression and difficulty in coping with her disease. She not only believed her problem was undervalued, but had an egodystonic body image, and trouble maintaining relationships.

Surgical considerations: Endometriosis, originally described by Rokitansky in 1860, is found in 1-8% of the general population and up to 35% of patients suffering from infertility. The first widely accepted theory regarding the pathophysiology of endometriosis was proposed by Samp-

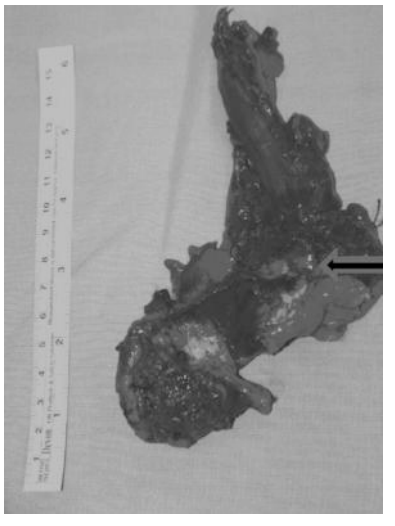

Fig. 4. – The specimen shows a tumor like-endometrioma in the upper rectum (arrow) with dark and whitish areas.

son, in 1922.[10] The prevalence of intestinal endometriosis is 5.4% to 25.4%. The most common location is the rectosigmoid colon; over 65% [11, 12] of these cases are located in sigmoid colon, followed by the rectum, ileum, appendix and cecum. The typical symptoms of rectal endometriosis are dysmenorrhoea, dyspareunia, cyclical rectal bleeding,[13] and intestinal obstruction due to the circumferential involvement of the rectum.[14]

Preoperative imaging of the pelvis in general and the rectum in particular is difficult but important for planning surgery. There are multiple techniques for this purpose. Magnetic resonance imaging (MRI) has a sensitivity of 80% and specificity of 90% for the evaluating rectal endometriosis.[15] The sensitivity of transvaginal ultrasound in identifying endometriosis in the muscular layer of the rectum is 100%, specificity is 85.7%, positive predictive value is 91%, and negative predictive value is 100%. Endorectal ultrasound has sensitivity of 97%, and specificity of 97%.[16,17] The endorectal ultrasound evaluation of our patient was normal. This suggests that although it has an elevated sensitivity and specificity, this diagnostic tool also produces false negatives probably related to the depth of the lesion. Colonoscopy is positive just in 10%-12% of cases because of the histological characteristics of endometriosis.

As in other painful conditions that can cause psychological distress, e.g. diverticular disease,[18] the treatment of large bowel endometriosis should be multidisciplinary. In addition to a skilled gynaecologist and colorectal surgeon, an expert psychologist is needed, because many of these patients have some degree of psychological distress due primarily to infertility.

In cases with rectal involvement there is evidence that endometriosis lesions are not just confined to the mucosa; in 36% of rectal specimens the lesions also involves the sub mucosal plane and in less than 12% of cases also is located at the mucosal plane.[19] This has some important implications regarding the removal of affected tissue. In cases where the disease involves small bowel and large bowel, as well as the rectum all affected tissue is, unfortunately, not always removed because many of patients are only evaluated and treated by gynaecologists, most of whom do not feel comfortable managing the dissection, resection and anastomosis of the colon and rectum.

A recent study by Brouwer et al.,[20] the largest series on treatment of rectal endometriosis, describes a 10-year experience with a total of 203 patients with rectal endometriosis who were treated surgically. One hundred seventy-three patients required segmental resection of the rectum, but on analysis there were no preoperative factors predicting the need of segmental resection of the rectum in the absence of symptomatic rectal obstruction. This illustrates the importance of participation of a colorectal surgeon in the management of the case when the suspicion of rectal involvement is high. Those patients who were candidates for segmental resection had on overall morbidity of 11%, the same morbidity on follow-up, and 9% reported gastrointestinal symptoms, most commonly frequency and urgency.

In conclusion we believe that prompt, radical surgical intervention, aimed at preventing rectal stricture and intestinal obstruction, with a multidisciplinary approach including psychotherapy, is the basis of a correct management of patients suffering from intestinal endometriosis.

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