

The primary and secondary endometriosis within abdominal wall

Raffaele Capoano
 Maria Chiara Tesori
 Erminio Mastroluca
 Giada Lacroce
 Andrea Police
 Karen Llange
 Eleonora Gianfrancesco
 Claudia Donello
 Federica Lombardo
 Bruno Salvati

Department of Surgical Sciences, "Sapienza"
 University of Rome, Italy

Corresponding author:

Raffaele Capoano
 Department of Surgical Sciences, "Sapienza" University
 of Rome, Italy
 E-mail: raffaele.capoano@uniroma1.it

Summary

Background: endometriosis is defined as the presence of functional endometrial glands and stroma outside the uterine cavity. It's classified in a primary and a secondary form. The endometriosis is a common gynecological disease with a prevalence estimated between 8-15% and it usually occurs in women during the reproductive years, with the maximum incidence between 30-and 40-year-old women.

The primary endometriosis form of the rectus abdominis muscle includes lesions that are not a result of a previous surgical procedure. This is an exceptional occurrence and only 18 cases have been described in Literature from 1984 to 2004. The incidence of the secondary form has been estimated around 0,003%-4%.

Cases: we report a rare case of primary endometriosis in the inguinal area and a case of scar endometriosis. In these two cases the treatment was the surgical excision that should include 5-10 mm of healthy tissue.

In the third case during operative dissection for hernia, a hard granulomatous lesion was found and removed.

Follow-up was performed by subjecting the patients to a transvaginal and trans abdominal ultrasonography, detection of serum level of CA-125 and a gynaecological evaluation 6 months after

surgery. An MRI scan was performed 1 year after surgery. All tests gave negative results.

Discussion: the causes of endometriosis are unknown, but there are several theories. The most popular is the retrograde menstruation, proposed by Sampson. A second theory is the vascular-lymphatic dissemination that can explain occurrence of endometriosis in such distant sites. A third theory is coelomic metaplasia: this would explain endometriosis in postmenopausal women and in male patients, who are undergoing estrogen therapy for prostatic carcinoma. The symptoms of the disease are cyclic or catamenial pain associated with a palpable mass. The differential diagnosis includes: hernia, hematoma, lymphadenopathy, lymphoma, lipoma, abscess, subcutaneous cyst, neuroma and desmoids tumor. The serum level of CA-125 can be slightly increased. Additional studies such as ultrasound, FNA (Fine-needle aspiration cytology), CT scan or MRI scan may be needed for the final diagnosis. FNA has been used in the preoperative assessment of abdominal wall masses and it has been reported to be useful in excluding the possibility of malignancy, but seems to be inconclusive in formulating diagnosis and it has been associated to an increased risk of recurrence. MRI may show characteristic findings due to iron in the hemosiderin deposits in an endometrioma.

The preferred treatment is a surgical wide excision. **Conclusions:** the preferred treatment is a surgical wide excision with clear margins, that is decisive as demonstrated by follow-up. Recurrence is rare, usually within 1 year and it is likely the result of an inadequate excision. Medical treatment of abdominal wall endometriosis is usually unsuccessful.

KEY WORDS: endometriosis, abdominal wall, surgery.

Background

Endometriosis is defined as the presence of functional endometrial glands and stroma outside the uterine cavity (1), indeed this condition is not present before the menarche. It's classified in primary and secondary form. The primary form of the rectus abdominis muscle includes lesions that were not a result of a previous surgical procedure and this is an exceptional occurrence and only 18 cases have been described in Literature from 1984 to 2004 (2, 3). The incidence of the secondary form has been estimated to 0,003-4% (4). We report a very rare case of primary endometriosis of

the rectus abdominis muscle and two cases of secondary endometriosis.

Case I

A 30-year-old woman came to our observation reporting the presence of a neof ormation of two centimetres in diameter in the right rectus abdominis muscle. Her personal history for previous surgery and for pelvic endometriosis was negative. The patient did not link the unsteady nature of the periodic exacerbation of the pain flowed by total pain remittance, with her menstruation. Clinical examination showed a neof ormation of two centimetres in diameter of tense-elastic consistency, immobile, aching to the touch. There was evidence to support the possibility of a soft tissue neoplastic growth. The patient's laboratory results (general blood count and serum level of CA-125 and CA-19,9) were all within the normal range. The patient was subjected to a transvaginal ultrasound that was negative for pelvic or ovarian endometriosis and to a trans-abdominal ultrasound that confirmed the presence of the neof ormation. The surgical removal of the lesion was performed and it showed a connection with deep subcutaneous tissue and the right rectus abdominis muscle. No connection with intra-abdominal structures was identified. The istological examination showed the presence of endometriotic tissue within the fibro-adipose and muscle tissue. Currently, the patient, without any medical treatment is in a follow-up for 5 years with negative results for disease recurrence.

Case II

A 31-year-old woman came to our observation reporting the presence of a mass of 3 centimetres in diameter in the midline of a Pfannensteil incision. She had a typical Pfannensteil incision having healed normal after having a child 3 years before. The patient reported that the neof ormation increased in size and it appeared to fluctuate in size in relation to her menstrual periods. The pain was a periodic abdominal scar pain associated with menses. Her personal history was negative for pelvic endometriosis and the patient's laboratory results (CA -125) were all within the normal range. The patient was subjected to clinical examination that confirmed the presence of neof ormation of tense-elastic consistency, aching to the touch. The transabdominal ultrasound showed a neof ormation. The mass was excised en-block. Macroscopically the lesion appeared as a characteristic "chocolate cysts". The histology report concerned a specimen 3x2.5 cm in dimension; within this tissue specimen multiple sites of endometriosis was revealed. The patient was followed up 5 months post-operatively and did not have any evidence of recurrence.

Case III

A 36-year-old woman came to our observation for evaluation of a bulge in her right groin. The patient report-

ed that the bulge had been present for approximately 6 months and increased in size with relation to her menstrual periods. The clinical examination showed a tender mass at the left corner of Pfannensteil incision, two centimeters above Poupart's ligament, immobile, irreducible. The patient had no history of pelvic endometriosis. The pre-operative diagnosis was a femoral hernia. During operative dissection hernia was found and the operative tilted towards the existence of a hard granulomatous lesion. The istological examination showed the presence of endometriosis.

Discussion

Endometriosis is a common gynecological disease with an estimated prevalence of 8-15% (5) that usually occurs in women during the reproductive years, with the maximum incidence being between the ages of 30 and 40 years (6). There are however reported rare cases in postmenopausal (7) women and in men (8). Endometriosis, first described by Rokintansky in 1860 (9), is defined as the presence of functioning endometrial tissue in anatomic locations other than the uterine cavity. The finding of ectopic endometrial tissue within the abdominal wall seems to occur among 0,03 to 1% (4) of women who have undergone prior gynaecologic or obstetric surgery. Endometrial lesions, solely confined to within the body of the rectus abdominis muscle are an exceptional occurrence and to date in the Literature only 18 cases have been described, the first in 1984 by Amato and Levitt (10). The causes of endometriosis are unknown, but there are several theories. The most popular is the retrograde menstruation, proposed by Sampson. A second theory is the vascular-lymphatic dissemination that can explain occurrence of endometriosis in such distant sites. A third theory is coelomic metaplasia, this would explain endometriosis in postmenopausal women and in male patients who are undergoing estrogen therapy for prostatic carcinoma. The symptoms of the disease are cyclic or catamenial pain associated with a palpable mass. The differential diagnosis includes: hernia, hematoma, lymphadenopathy, lymphoma, lipoma, abscess, subcutaneous cyst, neuroma and desmoids tumor. The serum level of CA-125 can be slightly increased (11). Macroscopically, pelvic or intrabdominal lesions appear as characteristic redish-blue implants or "chocolate cysts". Depending on the extent of intralesional hemorrhage, nodules may be of two types: (1) primarily composed of glands and hemosiderin-laden histiocytes or (2) solid rubbery mass, which contains an abundance of granulation tissue (10). Additional studies such as ultrasound, FNA (Fine-needle aspiration cytology), CT scan or MRI scan may be needed for the final diagnosis. FNA has been used in the preoperative assessment of abdominal wall masses and it has been reported to be useful in excluding the possibility of malignancy, but seems to be inconclusive (12) in formulating diagnosis and it has been associated to an increased risk of recurrence (12). MRI may show characteristic findings due to iron in the hemosiderin deposits in an endometrioma (13). The preferred treatment is a

surgical wide excision. We report a rare case of primary endometriosis, a case of endometriosis in the inguinal area and a case of scar endometriosis. In two cases the treatment was the surgical excision that should include 5-10 mm of surrounding healthy tissue; in the third case during operative dissection no hernia was found but the presence of a hard granulomatous lesion that was removed. Follow-up was performed by subjecting the patients to a transvaginal and transabdominal ultrasonography, detection of serum level of CA-125 and a gynaecological evaluation 6 months after surgery. An MRI scan was performed 1 year after surgery. All tests gave negative results. Our patients have been subjected only to surgery with a wide local excision of the lesion with negative margins, without any medical treatment.

Conclusions

The preferred treatment is a surgical wide excision with clear margins, that is decisive as demonstrated by follow-up. Recurrence is rare, usually within 1 year and is likely to be the result of an inadequate excision. Medical treatment of abdominal wall endometriosis is usually unsuccessful.

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