THE PRIMARY AND SECONDARY ENDOMETRIOSIS WITHIN ABDOMINAL WALL

ENDOMETRIOSI PRIMARIA E SECONDARIA DELLA PARETE ABDOMINALE

Capoano R¹, Tesori MC¹, Mastroluca E¹, Lacroce G¹, Police A¹, Llange K¹, Gianfrancesco E¹, Donello C¹, Lombardo F¹, Salvati B¹

¹ Department of Surgical Sciences, “Sapienza” University of Rome, Italy
² Dipartimento di Scienze Chirurgiche, “Sapienza” Università di Roma


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Abstract

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%, 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 is 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, lymphoadenopaty, lymphoma, lipoma, abscess, subcutaneous cyst, nevroma 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.

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**Abstract**

**Introduzione:** L’endometriosi viene definita come la presenza anomala di tessuto ghiandolare e stromale endometriale ormono-responsive al di fuori della cavità uterina. Viene classificata in primaria e secondaria (su cicatrice chirurgica da pregresso intervento sulla cavità uterina). L’endometriosi è una patologia che interessa donne in età riproduttiva con la massima incidenza tra i 30 ed i 40 anni, la cui prevalenza è stimata pari al 8-15%. L’impianto extrapelvico può interessare vari organi e la localizzazione a livello della parete addominale è rara (0,03%-1%). La localizzazione primaria in corrispondenza dei muscoli retti dell’addome è evenienza estremamente rara, descritta in Letteratura in 18 casi ed il primo a descriverla fu M. Amato nel 1984.

**Casi clinici:** Descriviamo i casi di nostra osservazione: un caso di endometriosi primaria, un caso di endometriosi su Pfannensteil ed un caso di endometrioma in regione inguinale. In due pazienti il trattamento di escissione della formazione, con margine di tessuto sano di 5-10 mm è stato di scelta; nel terzo la formazione dura e granulomatosa è stata asportata nel corso dell’intervento chirurgico condotto per la presenza di un’ernia inguinale. Tutte le pazienti sono state sottoposte nel follow-up a valutazione dei livelli sierici di CA 125, visita ginecologica a 6 e 12 mesi e RMN di controllo ad un anno. Nessuna complicanza e nessun caso di recidiva, con negativizzazione dei livelli del marcatore.

**Discussione:** La causa rimane sconosciuta: la prima ipotesi proposta da Sampson la attribuisce ad una mestruazione retrograda; la seconda ad una disseminazione linfo-vascolare che giustificherebbe l’impianto in siti distanti; la terza indica come possibile responsabile una metaplasia celomatica. Il sospetto diagnostico è fornito da un’attenta anamnesi e la diagnosi differenziale include tipologie diverse di tumefazioni: ernia, formazioni cistiche, ematomi, sieromi, ascessi, tumore desmoide, nevroma, linfadenopatia, linfoma. Importante è la valutazione dei livelli sierici del CA 125 che risultano di solito elevati. E’ necessario un approfondimento diagnostico con: ecografia, TC o RMN, F.N.A.B. L’ago-aspirato è una metodica scarsamente sensibile, associata ad un aumento del rischio di recidive.
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La risonanza magnetica riesce ad evidenziare il Ferro presente all’ interno dei depositi di emosiderina caratteristici dell’endometrioma. Il trattamento in ogni caso è quindi chirurgico.

Conclusioni: La diagnosi di certezza, ad oggi, è solo istologica ed il trattamento di scelta non può quindi essere che l’asportazione chirurgica. Le recidive sono rare, di solito si presentano entro il primo anno dovute, nella maggior parte dei casi, ad un’inadeguata escissione.

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-years old woman came to our observation reporting the presence of a neoformation 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 neoformation 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 neoformation. 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 indentified. The istological examination showed the presence of endometriotric 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-years 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 Pfannens teil incision having healed normal after having a child 3 years before. The patient reported that the neoformation increase d 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 a transvaginal ultrasound that was negative for pelvic or ovarian endometriosis and to a trans-abdominal ultrasound that confirmed the presence of the neoformation. 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 indentified. The histological examination showed the presence of endometriotric 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 III
A 36 years-old woman came to our observation for evaluation of a bulge in her right groin. The patient reported 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 Pfannenstein 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), 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, lymphoadenopaty, 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 contain 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 endometrios, a case of endometrios 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 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. 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.
References

Corresponding Author: Raffaele Capoano
Department of Surgical Sciences, “Sapienza” University of Rome, Italy
e-mail: info@preventionandresearch.com

Autore di riferimento: Raffaele Capoano
Dipartimento di Scienze Chirurgiche, “Sapienza” Università di Roma
e-mail: info@preventionandresearch.com