

## ENDOMETRIOSIS OF AN ABDOMINAL WALL SCAR

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**Summary.** Endometriosis of an abdominal wall scar is a rare clinical entity, occurring after gynaecological or obstetrical surgery. The origin remains vague. The clinical characteristic of these lesions implies an inconstant painful swelling during menstruation; however only the historical examination of the specimen will be able to conform the diagnosis. The treatment is primarily surgical and relies on the complete surgical excision of the lesion.

**Keyword:** *Endometriosis, abdominal wall, surgical scar*

#### Introduction:

Endometriosis was first described by Rokitansky in 1860 and was defined as the presence and proliferation of the endometrium outside the uterine cavity.

Endometriosis in patients with scars is more common in the abdominal skin. Scar endometriosis is rare and difficult to diagnose, often confused with other surgical conditions.

Common presentation includes palpable mass, cyclic pain during the menstruation, bleeding.

Differential diagnosis includes abscess, lipoma, hematoma, sebaceous cyst, suture granuloma, inguinal hernia, incisional hernia, sarcoma, lymphoma and primary or metastatic cancer. (4)

We present the clinical findings, the diagnostic procedures, and the management of two women with endometriosis of surgical scar.

#### PATIENTS, METHODS AND RESULTS

##### CASE No 1

A 36 year old female patient was presented with a painful lump on the lateral aspect of a caesarian incision near the umbilicus.

The patient was at the 5<sup>th</sup> day of the menstrual cycle. The patient had delivered two children, 6 and 3 years ago.

On physical examination, a palpable solid and painful mass was found in the right of the umbilicus.

Routine hematologic and blood biochemistry results were normal. Ultrasound of the mass revealed a 3.5 x 4 cm solid heterogeneous mass, of the umbilicus and the lig teres hepatis.

During surgery a sclerotic tissue with blood clot, desmoids element, and adhesions with lig teres hepatis was completely excised, including lig teres hepatis.

Histopathology examination showed endometriosis of these masses.

The patient had a uneventful postoperative course, without any signs of recurrence five years after the operation.

##### CASE No 2

A 37 years old female patient was presented with a 1 year history of pain during her menstruation at her abdominal scar from a cesarian section three years earlier.

On the examination, she had a nodule in the right of rectus abdominal muscle measured 4 cm on top of her inferior median incision.

Ultrasound of the abdomen was performed and revealed a mass 4.5 x 4 cm solid heterogeneous area. This was initially thought to be a stitch granuloma. At operation the mass was completely excised from the rectus muscle to the peritoneum. Histopathology evaluation showed endometriosis.

The patient had an uneventful postoperative course, without any reported symptoms 4 years postoperatively.

## Discussion

Endometriosis is the presence of functioning endometrial tissue outside the uterin cavity, whereas endometrioma is a well – circumscribed mass.

The various sides for extra pelvic endometriosis are bladder, kidney, bowel, omentum, lymphnodes, lungs, pleura, umbilicus, and abdominal wall. ( 8 )

Endometriosis involving the abdominal wall is an unusual phenomenon which should be considered in the differential diagnosis of abdominal wall masses in women.

The usual clinical presentation is a painful nodul in woman with a history of gynecological or obstretical surgery. The intensity of pain and size of nodule vary with menstrual cycle.

Endometriosis is approximately estimated to affect 10% to 15% of women in reproductive age with a mean age of presentation of 31 – 34 years, and up to 50% of infertile women. ( 1 )

Endometriosis of the abdominal wall has an incidence which is approximately 4% and is mainly localized at surgical scars, at the umbilicus and rarely at the inguinal canal or the rectus abdominis muscle. ( 2 )

The proposed theories of endometrioma formation are:

- Retrograde spread of collections of endometrial cells during menstruation.
- Blood, lymphatic or iatrogenic spred
- Metaplasia of the pelvic peritoneal cells
- Immune system dysfunction and autoantibody formation

Scar endometriomas are believed to be the result of direct inoculation of the abdominal cells during surgical intervention and subsequently stimulated by estrogen to produce endometriomas.

Time interval between operation and presentation has varied from 3 mounths to 10 years in different series. ( 5 )

## Diagnosis

Scar endometriosis is rare and difficult to diagnose.

Multiple diagnostic procedures have been used for the diagnosis of abdominal wall endometriosis such as ultrasound (US), computed tomography (CT), or magnetic resonance imaging (MRI).

However, none of them is specific and the excisional biopsy remains the preferred.

## Management

The treatment of choose for the endometriosis of the abdominal wall is the extensive surgical excision including the adjacent fascia.

Medical treatment with the use of progestogens, oral contraceptive pills, and danazol is not effective and gives only partial relief in symptoms and does not ablate the lesion.

Recently, there have been report of the use of gonadotrophine agonist (Leuprolide acetate), but it has been found to provide only prompt improvement in symptoms with no change in the lesion size. ( 7 )

Malignant of endometriosis in a cesarean scar is rare. ( 9 )

Only 21.3% of cases of malignant transformation of endometriosis occur at extragonadal pelvic sites and 4% of cases in scars after laparotomy.

## Conclusion

Endometriosis of the abdominal wall must be considered in the differencial diagnosis in women with painful abdominal wall mass.

In the presence of frequent recurrences, malignancy should be suspected, which carries a poor prognosis.

The extensive surgical exicion of the mass remains the treatment of choise

Good technique and proper care during cesarian section may help in preventing endometriosis.

## REFERENCES:

1. Douglas. C, Rotimi. O. Extragenital endometriosis – a clinicopathological with case illustrations J.Obstet Gynaecol 2004 24 ( 7 ): 804-808.
2. Blanco R.G Parithivel V.S. Shah. A.K Gumbs M.A. Abdominal wall endometriomas Am. J Surg 2003 185(6): 596-598.
3. KHOO J.J, Scar endometriosis presenting as an acute abdomen: a case rare report Aust NZJ obstet Gynaecol 2003, 43(2); 164-165.
4. Gourgiotis S, Veloudis, G, Pallas. N. Abdominal wall endometriosis Romanian Journal of Morfology and Embryology 2008 49(4); 550-555.
5. Sax, HC, Seydel AS Sickel JZ Warner ED. Extrapelvic endometriosis, Diagnosis and treatment. Am J Surg 1996 171: 239 – 241.
6. WITZ CA. Current concept in the pathogenesis of endometriosis. Clin obstet – Gynecol 1999 42(3), 566-585.
7. Rivling ME, Das. SK, Patel RB, Meeks GR. Leuprolide acetate in the management of cesarean scar endometriosis. Obstet Gynecol 1995 85; 838- 839.
8. Carpenter SE, Markham SM, Rock JA. Extrapelvic endometriosis. Obstet Gynecol. Clin North Am 1989;16 193-219.
9. Sergent F, Baron M, Le Cornec JB, Scotté M, Mace P, Marpeau L. Malignant transformation of abdominal wall endometriosis: a new case report. J Gynecol Obstet Biol Reprod ( Paris ) 2006: 35; 186 – 190.