

Endometriosis of Umbilical Cicatrix: Case Report and Review of the Literature

Paolo Rosina¹, Silvia Pugliarello¹, Chiara Colato², Giampiero Girolomoni¹

¹Section of Dermatology and Venereology, Department of Biomedical and Surgical Science; ²Department of Pathologic Anatomy, University of Verona, Verona, Italy

Corresponding author:

Paolo Rosina, MD
Section of Dermatology and Venereology
Department of Biomedical and Surgical Science
University of Verona
P. le Stefani 1
I-37126 Verona
Italy
prosina@yahoo.com

Received: February 29, 2008

Accepted: October 2, 2008

SUMMARY Umbilical endometriosis has an estimated incidence of 0.5%-1% of all patients with endometrial ectopia. It is a very rare disease, but should be considered on the differential diagnosis of umbilical lesions. We report on a case of spontaneous umbilical endometriosis in a 38-year-old woman, with a dark brown nodule periodically bleeding, associated with severe abdominal pain. There was no history of endometriosis and she had not been pregnant before. Laparoscopic visualization of pelvic cavity showed bilateral ovarian endometrioma (it was removed while sparing the ovaries). Surgical treatment proved effective. Cutaneous endometriosis could be a sign of internal endometriosis. Presentations may be atypical and pose diagnostic difficulty, mimicking other acute diseases, e.g., skin neoplasm, folliculitis, etc., but it should be suspected in any female presenting with a painful or bleeding mass close to the umbilicus or abdominal surgical scar.

KEY WORDS: extragonadal endometriosis, umbilical endometriosis, skin disease pathology, umbilical tumors, cutaneous endometriosis

INTRODUCTION

Endometriosis is defined as the presence of glands or endometrial stroma at anomalous sites, outside the womb. Endometriosis is clinically highly relevant, as it may cause infertility, dysmenorrhea, pelvic pain, and other problems. Disturbances associated with endometriosis start in the reproductive age, above all in the third and fourth decades, and involve about 10% of women. Extrapelvic localizations have been increasingly reported in the international literature, in an attempt to further clarify this difficult condition (1-19).

We report on a case of spontaneous umbilical endometriosis in a 38-year-old woman, with a dark brown nodule of 1 cm in size, periodically bleeding, associated with severe abdominal pain.

CASE REPORT

A 38-year-old nulliparous woman, menarche at 13 years, regular but abundant menstruation, never took oral contraceptives. Since the age of 13, the patient reported repeated nasal hemorrhages; for this reason, she underwent bilateral cauterization at the age of 16. The patient had never attended gynecologic clinic until 1995 when she underwent an urgent laparoscopic surgery for the rupture of ovarian endometrial cyst (the ovary was not ablated). After this episode, she paid no follow up visits. From 1998, the menstruation had become more irregular and painful; at the beginning of 2000, a lesion appeared in the lower portion of the navel. At first the lesion was papular, then nodular and in the last year it started to bleed with menstruation.



Figure 1. A hemorrhagic nodule in the lower portion of the navel.

In March 2003, the patient presented to the emergency room for persistent bleeding accompanied by pain. On the first clinical examination, a mole or another skin tumor was suspected and the patient consulted our Department of Dermatology. The nodule was 1 cm in diameter, brown-purple, neat margins, the surface was smooth but with some ulceration (Fig. 1). Dermatoscopic examination showed it to be of a homogeneous brown-purple color, with small red globules, without reticule or other specific dermatoscopic parameters. Blood tests indicated sideropenic anemia. The patient underwent excision of the nodule in local anes-



Figure 2. Macroscopic section of the nodule showing small red globular structures of the endometrial tissue.

thesia, saving the navel. Macroscopic section of the nodule showed small red globular structures, surrounded by adipose tissue (Fig. 2). Histologic examination showed glands associated with endometrial stroma, with chronic flogistic infiltrate and signs of recent hemorrhage; histology was compatible with cutaneous endometriosis (Fig. 3). For this reason, thorough gynecologic evaluation was advised. Echography showed bilateral ovarian endometriosis. In July, the patient underwent laparoscopy and subsequent ablation of the endometriosis. At present, she is in good health without cutaneous relapses and on hormonal therapy.

DISCUSSION

Endometriosis is clinically highly relevant. Disturbances associated with endometriosis start at the reproductive age, above all in the third and fourth decades of life, and involve about 10% of women. The disease affects women that have never got pregnant and those that have not been pregnant before the age of 30. Anyway, cases in prepubertal or postmenopausal women as well as in men treated with estrogens for prostatic neoplasia have been described (1). At any site, endometriosis may react like normal endometrium to estrogen stimulation, with a proliferative, secretory and desquamative phases. Even though in some cases the symptoms are completely absent, the symptoms are always cyclic, depending on the phases of the menstrual cycle. The symptoms are determined by the site rather than the size of endometriosis. Extrapelvic localizations have been increasingly reported in the international lit-

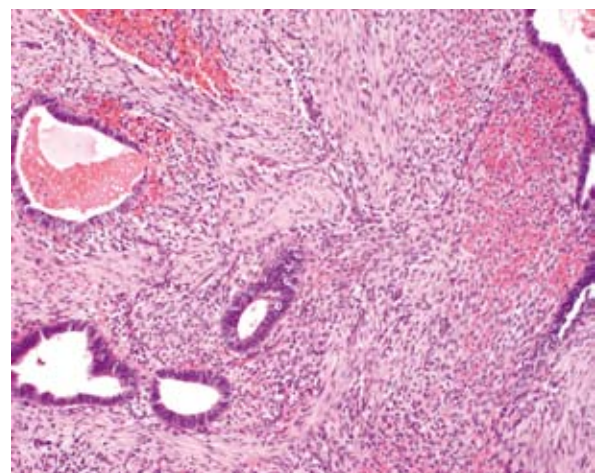


Figure 3. Histologic section showing dermis containing glands lined with endometrial-like stroma with hemorrhagic extravasations. (H&E, original magnification X20)

erature, in an attempt to further clarify this difficult condition (1-19). The most frequently affected organ is the ovary (27%), followed by Fallopian tube (22%), womb-sacral ligaments (16%), rectal-vaginal septum, pelvic peritoneum, portio, and also the bowel (5%-25%) (2). Endometrial tissue has been found in surgical scars (hysterectomy, cesarean section, laparoscopy and amniocentesis) (3-7). Umbilical endometriosis has a frequency of 0.5%-1% (8,9). It appears like a small circular nodule between 0.5 and 5 cm in size. It may increase in size and become painful during menstruation and then decrease in size. The mass, sometimes hard, is linked to the skin, may ulcerate and bleed (10,11). However, there is not always pain with menstruation. In our case, below the navel there was a brown-bluish nodular lesion of 1 cm, with small ulceration. In fact, there was hemorrhage during menstruation. Furthermore, echography showed bilateral ovarian endometriosis. A lesion in the umbilical region has to be differentiated as malignant lesions like melanoma or metastasis and benign lesions like moles (12). Malignant degeneration of ectopic endometrial tissue has been described (13,14). Even though surgical treatment is decisive, gynecologic follow up is useful, with possible hormonal therapy. On differential diagnosis, echography is useful to distinguish between solid and cystic lesion. Needle biopsy may also prove useful (15). However, an accurate diagnosis is made by histology. Recently, epiluminescence has improved the diagnosis of pigmented lesions.

De Giorgi *et al.* describe dermatoscopic features of cutaneous endometriosis as homogeneous reddish pigmentation with small globules called red atolls (6). Histologic examination showed red atolls to be irregular glands containing erythrocytes. The treatment is surgical. It prevents relapses that may occur after pharmacological treatment and allows for histologic examination (3,16-19).

Cutaneous endometriosis could be a sign of unknown internal endometriosis. Umbilical endometriosis should now be recognized as a primary or metastatic presentation or iatrogenic complication of endometriosis. Many investigators have postulated some pathogenetic mechanisms; most common explanations include vascular or lymphatic migration, cellular metaplasia and iatrogenic metastasis (19).

CONCLUSION

Cutaneous endometriosis presentations may be atypical and pose diagnostic difficulty, mimicking other acute skin diseases (skin neoplasm,

folliculitis, etc.), but it should be suspected in any female presenting with a painful or bleeding mass close to the umbilicus or abdominal surgical scar.

References

1. Metzger DA, Haney AF. Etiology of endometriosis. *Obstet Clin North Am* 1989;16:1-14.
2. Fox H, Buckley CH. Current concepts of endometriosis. *Clin Obstet Gynaecol* 1984;11:279-87.
3. Bergquist A. Different types of extragenital endometriosis: a review. *Gynecol Endocrinol* 1993;7:207-12.
4. Wittich AC. Endometriosis in an episiotomy scar: review of the literature and report of a case. *J Am Osteopath Assoc* 1982;82:22-3.
5. Kannitz A, Di Sant'Agnese PA. Needle tract endometriosis: an unusual complication of amniocentesis. *Obstet Gynecol* 1979;54:753-63.
6. De Giorgi V, Massi D, Mannone F, Stante M, Carli P. Cutaneous endometriosis: non-invasive analysis by epiluminescence microscopy. *Clin Exp Dermatol* 2003;28:315-7.
7. Chatterjee SK. Scar endometriosis: a clinicopathologic study of 17 cases. *Obstet Gynecol* 1980;56:81-4.
8. Michowitz M, Baratz M, Stavorovsky M. Endometriosis of the umbilicus. *Dermatologica* 1983;167:326-30.
9. Albrecht LE, Tron V, Rivers JK. Cutaneous endometriosis. *Int J Dermatol* 1995;34:261-2.
10. Chelli H, Chechia A, Kchir N. Endometriose ombilicale. A propos de deux cas. *J Gynecol Obstet Biol Reprod* 1993;22:145-7.
11. Igawa HH, Ohura T, Sugihara T, Hosokawa M, Kawamura K, Kaneko Y. Umbilical endometriosis. *Ann Plast Surg* 1992;29:266-8.
12. Steck WD, Helwig EB. Tumors of the umbilicus. *Cancer* 1995;18:907-15.
13. Thomas EJ, Campbell IG. Evidence that endometriosis behaves in a malignant manner. *Gynecol Obstet Invest* 2000;50(Suppl 1):2-10.
14. Lausanhti K. Malignant external endometriosis: a case of adenocarcinoma of umbilical endometriosis. *Acta Pathol Microb Scand* 1972;233:98-102.

15. Perez-Seoane C, Vargas J, de Augustin P. Endometriosis in an inguinal-crural hernia: diagnosis by fine needle aspiration biopsy. *Acta Cytol* 1991;35:350-2.
16. Singh KK, Lessells AM, Adam DJ, Jordan C, Miles WF, Macintyre IM, *et al.* Presentation of endometriosis to general surgeon: a 10-year experience. *Br J Surg* 1995;82:1349-51.
17. Seydel AS, Sickel JZ, Warner ED, Sax HC. Extrapelvic endometriosis: diagnosis and treatment. *Am J Surg* 1996;171:239-41.
18. Proposito D, Negro P, Gossetti F, Di Paola M, Montemurro L, Gallina S, *et al.* Endometriosis extrauterina: quale interesse per il chirurgo generale? Presentazione di 3 casi clinici e revisione della letteratura. *Chir Ital* 2002;54:699-708.
19. Victory R, Diamone MP, Johns A. Villar's nodule: a case report and systematic literature review of endometriosis externa of the umbilicus. *J Minim Invasive Gynecol* 2007;14:23-32.



Illustration from Svijet magazine; year 1929.
(from the collection of Mr. Zlatko Puntijar)