CASE REPORT

Anterior Abdominal Wall Scar Endometriosis: An Enigma

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his credit.

Introduction

The presence of functioning endometrium outside the uterine cavity is called endometriosis. It is a major gynecological problem which affects 8–10 % of women of reproductive age. In 30 % of the women, the condition is associated with primary or secondary infertility [1]. Endometriosis is common in the pelvic organs like ovaries,

pouch of Douglas, broad ligament, uterosacral ligament, fallopian tubes, rectosigmoid colon, bladder, and uterovesicle space, and also on other genital organs like episiotomy scars and Bartholin glands [2].

Extra pelvic endometriosis is a rare entity occurring in the following possible sites—in the order of their frequency: the peritoneum, the abdominal wall, and bladder. Rare are the umbilicus, kidney, lungs, pleura, and the extremities. Scar endometriosis is a rare disease with an incidence of 0.03–0.15 %. They present with varied clinical manifestations like pain, painful palpable nodules, bleeding from scar, cramps, and bloating sensation during menses. Anterior abdominal wall endometrioma is well documented in the literature, but it may cause diagnostic dilemma due to unfamiliarity and rarity. This case report helps to highlight the fact that extra pelvic endometriosis still remains an enigma—difficult to diagnose clinical condition requiring high index of clinical suspicion—especially when it is recurrent and deep seated in fascia as occurred in our case.

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Case 1: (Atypical Presentation)

A 37-year-old, multiparous lady presented with continuous dull aching pain at the cesarean scar site for the past 1 year, which was noncyclical. On examination, it was found that she had right iliac fossa tenderness along Pfannenstiel scar, but no palpable mass was felt, and scar was healthy. She had undergone two previous cesarean deliveries: 9 and 7 years before. She also underwent operative laparoscopy for severe endometriosis with adhesiolysis 4 years before, followed by total laparoscopic hysterectomy with excision of scar endometriotic nodule at umbilical site 3 years before. She was also put on gonadotrophin-releasing hormone agonists for 3 months postsurgery to suppress endometriosis.

Ultrasonography revealed a subcutaneous nodule of 3.3×3.5 cm with irregular borders, a heterogeneous echo texture with internal scattered hyper echoic echoes suggestive of scar endometriosis on right anterior abdominal wall, but there was no evidence of ovarian endometriosis.

We performed an exploratory laparotomy by entering abdomen through previous Cesarean section scar—abdominal flap was elevated. With difficulty, we could find an endometrioma (3.3×3.5 cm) involving right rectus sheath and muscle (Fig. 1a), which was completely excised (Fig. 1b). Bilateral salpingoophorectomy was done to prevent recurrence. Abdominal wall defect was reconstructed with polypropylene mesh measuring 30×30 cm.

Case 2: (Typical Presentation)

A 35-year-old parous lady presented with right ovarian endometrioma measuring 5.4×6 cm and umbilical scar endometriosis (Fig. 2a). It was at previous laparoscopic primary umbilical port site, which was done for severe endometriosis 7 years before. She used to get cyclical pain at umbilical scar, which gradually started cyclically bleeding over a 1-year period. She underwent wide local excision of the scar and right salpingo ophorectomy. Histopathological examination confirmed the presence of endometrial glands and stroma amidst skin and dermis (Fig. 2b).

Discussion

Anterior abdominal wall scar endometriomas are most commonly seen after procedures on uterus and tubes. Cesarean scar endometriosis is the most frequently reported form of this disorder and is usually benign, although malignant transformation has been reported.

As enigmatic as pelvic endometriosis has proven to be, extra pelvic endometriosis is unquestionably rarer, more

Fig. 1 a Rectus sheath—evidence of endometriosis at the time of excision. b Specimen of wide surgically excised rectus sheath endometrioma

Fig. 2 a Umbilical scar endometriosis. b Histopathology of scar endometriosis showing evidence of endometrial gland and stroma within skin and dermis

difficult to diagnose and treat, and has certainly been less well studied. It is easily confused with other conditions, such as keloids, hematoma, stitch granuloma, abscess, primary or metastatic adenocarcinoma, nodular melanoma, cutaneous endosalpingosis, and inguinal and incisional hernia [3].

The literature reports that the average time from surgery to clinical presentation may vary from 3 months to 12 years in different cases as against 9 and 7 years in our cases, which leads us to support the hypothesis that the mechanical migration theory plays an important role in the development of the disease, since it appeared on the cesarean and laparoscopy scar (a low-resistance point) after many years of primary surgery. Scar endometriosis is explained by the migratory pathogenesis theory wherein the endometrial tissue is dispersed by vascular and

lymphatic channels due to surgical manipulation. The late onset of symptoms is the usual cause of misdiagnosis.

The diagnosis of scar endometriosis based solely on data from the history and clinical examination is difficult, especially when they have atypical noncyclical pain as in our first case. High degree of suspicion is necessary to diagnose rectus sheath endometriosis substantiated by imaging modalities. The literature reports the use of sonographic and color Doppler examinations, fine needle aspiration, computer tomography, and magnetic resonance tomography in addition to the clinical data, which substantially help to reach a reliable preoperative diagnosis [2].

There is always a chance of the coexistence of pelvic endometriosis causing pelvic pain. There are no recommendations or guidelines to perform simultaneous laparoscopy to diagnose coexisting pelvic endometriosis while performing a local excision [4].

Numerous medical lines of treatment using newer progestogens, danazol, oral contraceptive pills and gonadotrophin-releasing hormone agonists have been tried with partial response and recurrence on stopping drugs, requiring more definitive treatment that is wider local surgical excision.

These patients need to be followed up because of the chances of recurrence, and rarely a new lesion at another site as observed in our case, which required re-excision. In cases of continual recurrence and long-standing recurrence, possibility of malignancy needs to be ruled out.

As the rates of cesarean delivery are increasing day by day, it is important for clinicians to know the early diagnosis and optimal management of this enigmatic scar endometriosis. Good clinical practice techniques and proper care during primary surgery may help in preventing endometriosis. It has been suggested that at the end of surgery especially on uterus and tubes, the abdominal wall

wound should be cleaned thoroughly—irrigated vigorously with high jet solution before closure. However, no published randomized trials are available on this.

Conclusion

Anterior abdominal wall scar endometriosis poses a challenge for diagnosis and treatment, in view of varied manifestations and recurrence, remaining as an enigma. These interesting cases add on to the scientific knowledge as they have an atypical presentation of extra pelvic endometriosis, compelling us to think about the genetic tendency of these patients toward recurrence and need of high index of suspicion for diagnosis, need of follow-up and prevention of recurrence at incisional site.

Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interests.

Informed consent Informed consent was obtained from all individual participants included in the study.

References

1. Acién P, Velasco I. Endometriosis: a disease that remains enigmatic. *ISRN Obst Gynecol* 2013;2013:12. Article ID 242149
2. Machairiotis N, Stylianaki A, Dryllis G, et al. Extrapelvic endometriosis: a rare entity or an under diagnosed condition? *Diagnostic Pathology*. 2013;8:194.
3. Blanco RG, Parithivel VS, Shah AK, et al. Abdominal wall endometriosis. *Am J Surg*. 2003;185(6):596–8.
4. Kodandapani S, Pai MV, Mathew M. Umbilical laparoscopic scar endometriosis. *J Hum Reprod Sci*. 2011;4(3):150–2.