

UMBILICAL ENDOMETRIOSIS FOLLOWING CONCURRENT ABDOMINAL MYOMECTOMY AND UMBILICAL HERNIORRHAPHY DURING MENSTRUATION - A CASE REPORT.

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ABSTRACT

Umbilical endometriosis is a rare form of extra pelvic endometriosis and certain risk factors have been known to increase its occurrence. We present a woman, who presented with an umbilical mass which bleeds cyclically. The mass developed following abdominal myomectomy and concurrent repair of umbilical hernia during menstruation. She had excision biopsy of the umbilical mass and umbilical reconstruction; histological examination confirmed endometriosis.

The highpoints of this presentation are to emphasize the need to avoid abdominal myomectomy during menstruation and discourage concurrent surgical procedures because these increase the risk of endometriosis after the procedure.

Key words: Umbilical endometriosis, Myomectomy, Herniorrhaphy

INTRODUCTION

In the late nineteenth century, it was Sampson who first coined the word endometriosis to describe ectopic tissues possessing histologic structure and function similar to that of the uterine mucosa. Endometriosis is defined as the presence of endometrial glands and stroma outside the endometrial lining. It may occur in up to 12% of women of reproductive age¹ and it can be pelvic [genital] or extra pelvic [extra genital]. Up to 80% occurs in the ovary², other areas in the pelvis include the round ligament, fallopian tubes, Pouch of Douglas, utero-sacral ligament and pelvic side wall. Extra genital cases are less common but has been described in almost every area in the body including bowel, urinary bladder, umbilicus, surgical scars,

lungs, brain, appendix, colon and inguinal canal¹⁻⁶. Explanations about the pathogenesis of endometriosis include the hypothesis of migration theory by Sampson which explains ovarian endometriosis while the coelomic induction theory which explains peritoneal endometriosis while scar endometriosis is explained by the migratory pathogenesis theory

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wherein the endometrial tissue is dispersed via vascular and lymphatic channels due to surgical manipulation^{2,4}.

Cutaneous endometriosis is rare and can be primary or secondary following procedures like myomectomy, laparoscopy, laparotomy, hysterectomy, Caesarean section or episiorrhaphy. This may be due to implantation of viable endometrial tissue during the procedures or their transport via vascular channels¹. Umbilical endometriosis is a form of cutaneous endometriosis; it may be primary or secondary following surgical procedures¹. It has been suggested that cutaneous endometriosis should be suspected in any female presenting with cyclic pain emanating from a mass in the vicinity of an abdominal surgical scar or the umbilicus⁵.

CASE PRESENTATION

A 38years old Para 0 + 0 woman presented with cessation of menstruation and umbilical swelling of four years duration. The swelling which has been non progressive, showed cyclical slight increase in size with corresponding pain and bleeding approximately every four weeks. There was no history of dyspareunia, pelvic pain, diarrhea or constipation.

Four years earlier, she had abdominal myomectomy and umbilical herniorrhaphy done simultaneously at a private hospital on account of symptomatic uterine fibroid with menorrhagia; the surgeries were done during her menstruation and present symptoms started after the procedures. She has been married for 8 years with no conception.

Following the cessation of menstruation, she thought that she was pregnant until a urine pregnancy test performed was

negative. Before presenting to us, the investigations carried out included an abdomino-pelvic ultrasound scan which showed a bulky uterus with multiple uterine fibroid nodules with the endometrial plate showing intermittent areas of defect that were suggestive of adhesions. There were no other pelvic or intra-abdominal masses.

Hysterosalpingography showed an irregular outline in the cervical canal with only a small portion of the cervico-uterine segment seen. The rest of the uterine cavity and fallopian tubes were not demonstrated. The conclusion was that of severe uterine adhesions.

On examination, she was not pale, afebrile and anicteric. The abdomen was full and moved with respiration. There was a right paramedial scar which was about 3cm in width suggesting that it healed by secondary intention. A hard, nodular, dark bluish, non-tender mass was present on the umbilicus measuring 2 x 2 cm with no bleeding from it [Fig 1]. The uterus was enlarged and compatible with a 14 weeks size gestation. Pelvic examination showed normal vulva and vagina, the cervix was posterior, firm, 2cm long and cervical Os was closed. There was no cervical excitation or tenderness. There was no thickening of the utero-sacral ligament and there was no tenderness over the recto-vaginal septum, pouch of Douglas or adnexa. The uterus was bulky and compatible with a 14weeks size gestation.

The summary of the assessments were Secondary amenorrhoea due to Asherman syndrome, Umbilical endometriosis and recurrent uterine fibroids.

She was counseled and she expressed her concern that resumption of menstruation and removal of the umbilical mass were of utmost priority to her. She opted for and had the

procedures of excision of the Umbilical mass and umbilical reconstruction, Adhesiolysis and Intrauterine device insertion were also performed. This was followed by hormonal support with unconjugated estrogen and progestogen.

The histology findings of the excised Umbilical mass confirmed umbilical endometriosis. It showed sections of skin tissue with acanthosis and hyperkeratosis of the epidermis with the dermis infiltrated by endometrial tissue. The endometrial tissues were composed of numerous endometrial gland and stroma; the glands were round to oval and lined by columnar epithelial cells while the stroma was loose and composed of spindle shaped cells.

At eight weeks follow up visit, her Umbilicus appeared normal with no evidence of recurrence; she was still on the hormones and was yet to resume menstruation.

CONSENT

A written consent was obtained from the patient after counseling about the desire for publication of the case. She voluntarily gave her consent because she believed that this will help in decision making during management of other patients in the future.

DISCUSSIONS

Umbilical endometriosis is a form of cutaneous endometriosis; its primary form is much rarer than secondary umbilical endometriosis which is usually found in scars of surgical procedures. It presents as an umbilical swelling which is usually bluish black, may be slightly painful especially during menstruation with associated swelling and slight bleeding. The risk for umbilical endometriosis was increased as in this case by performing abdominal

myomectomy during menstruation when there is abundance of viable endometrial tissue for possible inadvertent implantation and performance of an additional surgical procedure during the myomectomy which was umbilical herniorrhaphy in this case. The raw surfaces from the surgical scar presented a good site for implantation of endometrial tissue during the procedure.

Presence of cutaneous endometriosis is not necessarily associated with endometrial tissue elsewhere unless there are symptoms to suggest this ^{1,3}. Umbilical endometriosis is best diagnosed and cured with excision biopsy ¹⁻⁶ and histological confirmation as was done in this patient. Other diagnostic methods have been proven to be non-specific and unreliable in literature ³. There is always a chance of coexisting pelvic endometriosis which usually present as chronic pelvic pain. Although there are no recommendations or guidelines to perform simultaneous laparoscopy to diagnose pelvic endometriosis while performing local excision of umbilical endometriosis; cases are usually individualized ³. However, in the presence of associated pelvic endometriosis, pelvic laparoscopy, hormonal therapy with Gonadotrophin Releasing Hormone [GnRH] analogue, antioestrogens like Danazol or excision of pelvic endometrioma may be required ^{2,3,6}. In the case presented, there was no evidence of pelvic endometriosis or endometrioma; thus, she had excision biopsy and umbilical reconstruction.

Differential diagnosis of umbilical endometriosis which should be entertained includes Umbilical granuloma, Umbilical inclusion cyst, residual embryonic tissue, Umbilical melanoma, benign lesions of the Umbilicus and primary or secondary metastatic

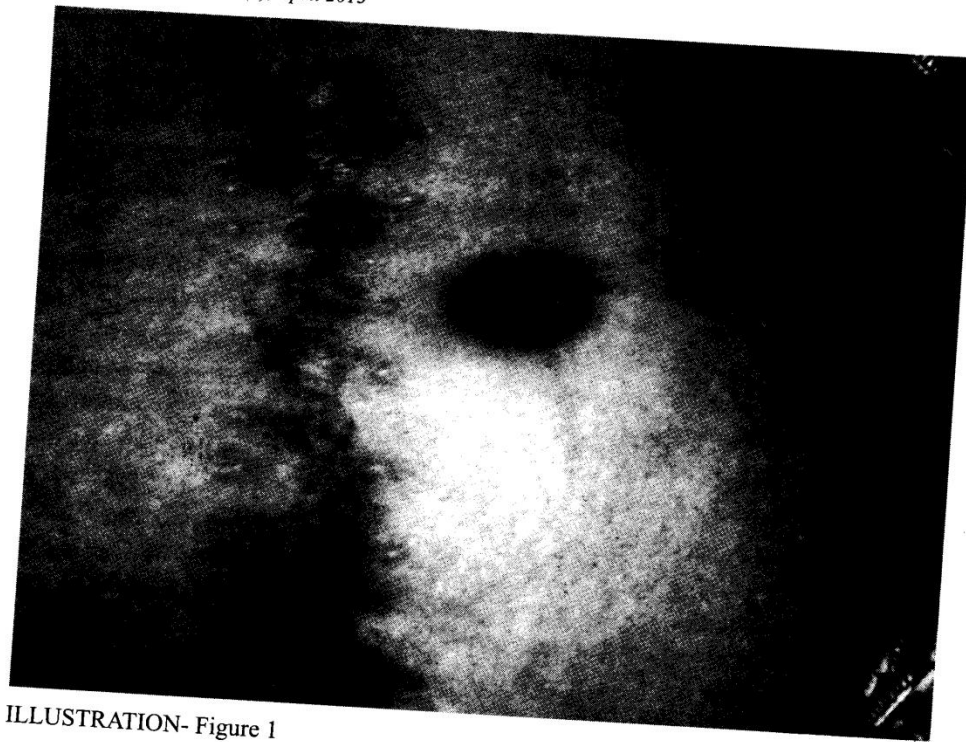


ILLUSTRATION- Figure 1

Figure 1: A right paramedian scar and an Umbilical mass [endometriosis]

adenocarcinoma [Sister Mary Joseph's nodule].

Conclusion

Performing myomectomy during menstruation provides significant amount of endometrial tissue for implantation on other body surfaces, this provide an increased opportunity for the formation of Umbilical endometriosis. Clinicians should avoid this practice to prevent such complications.

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