LAPAROSCOPIC SCAR ENDOMETRIOSIS – LAPAROSCOPIC TUBAL LIGATION: A RARE CASE REPORT

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Abstract
Endometrium located outside its normal location is called endometriosis. Scar endometriosis (IE) is a rare entity reported in 0.03-1.08% of women following obstetric or gynecological surgeries. Post salpingectomy endometriosis is documented in 20 – 50 % of tubes examined after ligation. The diagnosis is frequently made only after excision and histopathology of the lesion. We are presenting a case of a 42-year-old woman who underwent laparoscopic tubal ligation four years back complained of cyclic pain during menstruation. On examination, there was a firm nodule measuring 3x4cm in size at laparoscopic tubal ligation site that became spontaneously painful during menstrual bleeding. The USG report suggested Desmoid tumor. The nodule was excised & sent for Histopathological examination which confirmed the diagnosis.

Key Words
- Scar endometriosis, laparoscopic tubal ligation, Post salpingectomy endometriosis

Key Messages
1. Post salpingectomy endometriosis is documented in 20 – 50 % of tubes examined after ligation.
2. Laparoscopic tubal ligation, although thought to be the safest procedure but cases of endometriosis are documented in these patients

Introduction
Endometriosis was first described by Rokitansky in 1860. It is defined as the presence of functioning endometrium outside the uterus. It occurs in 8-15% of women of reproductive age group. Post-salpingectomy endometriosis is usually noted at the tip of the proximal stump, 1-4 years after tubal ligation. It constitutes around 20-50% of cases examined after tubal ligation. The chances of this being detected are higher especially if electrocautery is used in tubectomy, if the proximal stump is short and if the post-ligation interval is long. It usually produces firm, palpable nodules which must be evaluated and differentiated from other benign and malignant abdominal wall tumors. The most common locations
of abdominal wall endometriomas are old surgical scars from obstetric or gynecological procedures. Scar endometriosis presents clinically as a painful, palpable subcutaneous mass, associated with cramps and bloating during menses. It is easily confused with other conditions, such as Desmoid tumor, Keloids, Hematoma, Stitch granuloma, Abscess, inguinal and incisional hernia. For confirmation of the diagnosis histopathological examination is done. Treatment of endometriosis is medical (contraceptive pills, Danazol) or surgical (Laparoscopy and Laser surgical resection).

**CASE REPORT**

A lady of 42 years came to surgery OPD and complained of cyclic pain during menstruation. On examination, there was a firm soft mobile nodule measuring 3x4cm in size at laparoscopic tubal ligation site. She complained that the nodule became spontaneously painful during menstrual bleeding. The USG report suggested of a desmoid tumor. The surgeons excised that nodule and sent for Histopathological examination. A skin covered soft tissue mass was received measuring 8x6x4cms. The outer surface was smooth.

**Histopathology report**

The histopathology report showed histomorphology of skin & fibrous tissue with underlying presence of endometriosis showing distended endometrial glands, endometrial stroma & areas of hemorrhage. Hemosiderin pigment laden macrophages & few chronic inflammatory cells were also seen.

**Discussion**

Scar endometriosis most commonly occurs after operation on the uterus and tubes. The gynecological operative procedures like laprotomy/caesarian sections/episiotomy carry the risk of triggering the appearance of endometrial tissue in operative scar tissue. The etiology of abdominal wall endometriosis is thought to be a result of transportation of endometrial tissue during surgical procedures and subsequently stimulated by estrogen to produce endometriomas. Review of the surgical literature indicates that preoperative diagnosis is often incorrect. Sampson had claimed that after partial salpingectomy for sterilization, the tubal epithelium sprouted from the cut ends and invaded the surrounding tissues. This misplaced tubal epithelium retained its original structure (endosalpingiosis) or underwent metaplasia (endometriosis). This concept of post-salpingectomy endosalpingiosis or endometriosis has been challenged by Stock. He concluded that endosalpingeal endometriosis of the proximal stump was due to repeated menstrual reflux rather than metaplasia of seeded or invading tubal mucosa. Rock JA et al studied details gross and histological findings of 79 previously ligated fallopian tubes from 3 groups of patients. Of 20 tubes removed after documented sterilization failure, 6 showed endometriosis. 4 of 9 previously
ligated tubes, were injected with ink; 2 patients showed ink in epithelium-lined spaces beyond the muscle of the tubal wall from the tubal lumen to the serosal surface. Laparoscopic cautery sterilizations had higher percentages of fistula formation and endometriosis at sterilization site than sterilizations by other methods. Therefore, ligation of the fallopian tube within 4 cm of the uterine cornu may predispose development of endometriosis and subsequent fistula formation at the tip of the ligated tube.

To conclude one should be suspicious of scar endometriosis when woman present with painful swelling in the abdominal scar & giving history of previous gynecological or obstetrical surgery. Since the fallopian tube is not sampled extensively during routine processing of hysterectomy specimens, there are chances of missing the variations in the morphology of the fallopian tube and hence under-reported. Therefore, the pathologists should be aware of such morphological aberrations in the fallopian tube.

The section shows histomorphology of distended endometrial glands, endometrial stroma & fibrous tissue.(H & E , 10X)
The section shows histomorphology of endometrial glands, endometrial stroma. Hemosiderin pigment laden macrophages & few chronic inflammatory cells are also seen.
(H & E, 10 X)

References