

Scar Endometriosis

Rai S¹, Khadka S¹, Baral G¹

¹Paropakar Maternity and Women's Hospital, Kathmandu, Nepal

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Scar endometriosis following caesarean section is a rare presentation and is characterized by the presence of endometrial glands implants at the incision site. As the patients present with a lump in the abdominal scar, the preoperative diagnosis can be often mistaken with other surgical conditions. We present two cases of post cesarean scar endometriosis. Cyclical pain and scar lump were evaluated both clinically and sonologically; then confirmed by excision biopsy.

Keywords: caesarean section, endometriosis, scar

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INTRODUCTION

Endometriosis is defined as the presence of endometrial glands and stroma outside the uterus. It is a common gynaecological condition involving 8-15 % of reproductive women¹ and was first described by Carl Rokitansky in 1860.^{2,3} The involvement of intrapelvic structures like ovaries followed by posterior cul-de-sac, uterosacral ligament, pelvic peritoneum and rectovaginal septum are more common than the extrapelvic structures like lungs, appendix and intestine which comprises the incidence of 8.9 %.^{1,3,4} Furthermore, endometriosis can be seen in the abdominal wall after surgery. Scar endometriosis is the rarest entity and in obstetrical practice it occurs in cesarean section and episiotomy scar. The incidence of scar endometriosis after a caesarean section ranges from 0.03–1.73 % with an average rate of 0.50%.¹

Case-1:

A 30 years old, multigravida with history of cesarean section 3 years back came with the complain of pain over her Pfannenstiel incision site for two and half years along with a palpable lump at the right side of the incision. The pain was cyclical that usually occurred during her menstruation without the change in size of the lump. Her examination revealed a nodule of 2x2 cm in the right side of the Pfannenstiel scar which was non tender, firm in consistency and non mobile. USG showed well defined hypoechoic

lesion along the abdominal scar on the right side in the subcutaneous plane indenting the underlying right rectus abdominis muscle and with internal vascularity (Figure 1).

Considering scar endometriosis, excision under subarachnoid block was done. Intraoperative findings revealed a mass about 2x2 cm in subcutaneous layer with bluish deposits (Figure 2). Histopathology of the mass exhibited the presence of endometrial glands and stroma that confirmed the diagnosis of endometriosis (Figure 3).



Figure-1. Ultrasound showing hypoechoic lesion in the subcutaneous tissue beneath the abdominal scar

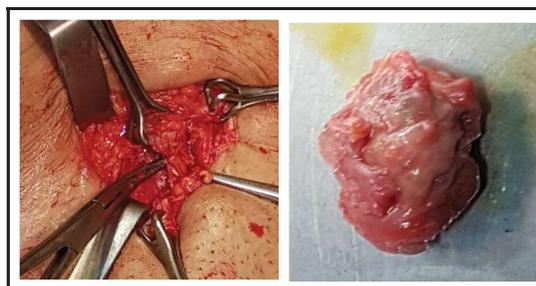


Figure-2. Subcutaneous mass of 2x2cm excised

CORRESPONDENCE

Dr Snigdha Rai
Paropakar Maternity and Women's Hospital, Kathmandu
Phone: +977-9851195477
Email: snigdha_raj@hotmail.com

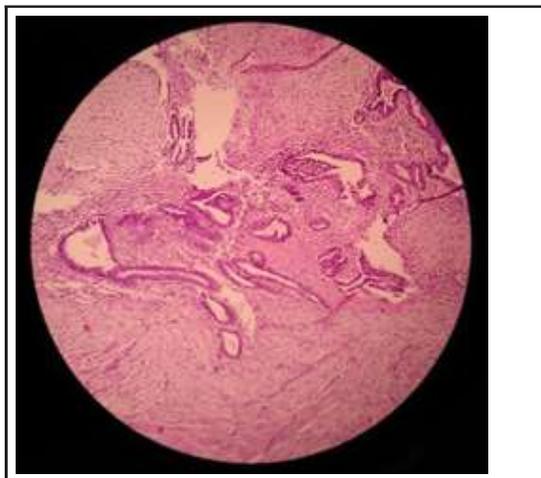


Figure-3. Histology of scar endometriosis: disorderedly arranged endometrial glands and stroma

Case-2:

Twenty-eight years old para 1 presented with the complain of mass at the right side of scar for 2 years. She had cesarean section three years back. The mass was initially small size, which had gradually increased and was associated with pain during menstruation which was gradual in onset, mild to moderate in nature and subsided after the completion of menses. On examination, there was a mass of around 4x3 cm over the right edge of the Pfannenstiel incision, which was smooth, firm, regular, non-tender and was mobile. She was planned for excisional biopsy. Blunt dissection was made, mass was found in the fascial plane surrounded by fatty tissue. The mass was excised, fascia was closed and tissue was sent for histopathological examination which showed fibrocollagenous stroma comprising of many endometrial glands and stroma embedded along with mature adipose tissue, muscle fibers, chronic inflammatory cells and congested vessels consistent with endometriosis.

COMMENT

Endometriosis can occur in subcutaneous tissues following various obstetric and gynaecological procedures where there is a possible chance of contact with endometrial tissue that includes episiotomy, hysterotomy, myomectomy, ectopic pregnancy, laparoscopy, tubal ligation and cesarean section.^{5,6}

Abdominal wall endometriosis is a rare complication of cesarean section comprising the incidence of <1%. Various studies have quoted the time interval between the surgery and clinical presentation to be between 3 months to 10 years.^{5,7} Endometriosis in patients with

scars, is more common in the abdominal skin and subcutaneous tissue compared to muscle and fascia. Endometriosis involving only the rectus muscle and sheath is very rare.

Several theories have been put forward to explain the occurrence of scar endometriosis, however the most promising explanation is its occurrence due to the direct implantation of the endometrial tissues during the wound closure.^{5,6} It is said that in case of cesarean section, the usual cause is the needle that passes through the endometrium and transplants the endometrial tissue in the abdominal wall when it is being stitched with the same needle and then slowly the endometrial tissue grows and develops into a mass.^{8,9}

Good technique and proper care during cesarean section may help in preventing scar endometriosis. Hypothesis regarding prevention includes careful cleaning and vigorous irrigation of the abdominal wall wound with high jet solution before closure and closing the parietal and visceral peritoneum at the time of closure of cesarean section.^{5,9,10,11}

The diagnosis is usually based on the patient's symptoms of cyclical pain that occurs with menstruation and presence of mass in the scar. Differential diagnosis of scar endometriosis includes incisional hernia, granuloma, abscess, lipoma, sebaceous cyst and metastatic carcinoma.^{1,3} Ultrasonography is a useful tool and most commonly used diagnostic procedure. Other imaging investigations like CT scan, MRI have been reported as diagnostic with variable results. In addition to this Doppler ultrasonography may be helpful for accurate determination of the disease extension.^{3,9} Likewise some authors have suggested FNAC as an accurate preoperative diagnosis but biopsy will be the ultimate diagnostic method. However, some have stated the use of FNAC for cytological diagnosis as controversial as it may increase the risk of new endometrial implants.^{1,3,6}

Endometriosis can be treated both surgically and by medical therapy. Oral contraceptives, progesterone and gonadotrophin releasing hormone analogue have been shown to relieve symptoms temporarily but do not ablate the lesion due to which there is recurrence of symptoms after the cessation of drugs.^{5,6} Total surgical excision with at least 1 cm margin is considered to be gold standard.^{3,5,6,11}

CONCLUSIONS

Though scar endometriosis is a rare entity but with the increasing rate of caesarean section worldwide, it is difficult to predict whether the incidence of scar

endometriosis will remain the same in the future days. Hence, it is important to raise awareness among the gynaecologist and obstetricians towards its prevention, clinical presentation and management.

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