

# Intrauterine endometriotic cyst at the site of previous cesarean scar; scar endometriosis

H. İsci<sup>1</sup>, G. Gonenc<sup>2</sup>, A.B. Yigiter<sup>1</sup>, N. Guducu<sup>1</sup>, İ. Dündar<sup>1</sup>

<sup>1</sup> Department of Obstetrics and Gynecology, Istanbul Bilim University, Istanbul

<sup>2</sup> Department of Obstetrics and Gynecology, Beykoz State Hospital, Istanbul (Turkey)

## Summary

Uterine scar endometriosis is an extremely rare entity. As the surgical procedures of the uterus increases through time, scar endometriosis may be diagnosed more often in the future. A case of uterine scar endometriosis is presented with complaints of menstruation lasting one day with associated pelvic pain. When a cystic mass in the site of previous surgery is diagnosed, scar endometriosis must be considered.

**Key words:** Cesarean scar; Endometriosis; Uterine scar.

## Introduction

Endometriosis is described as the presence of functioning endometrial tissue outside the uterine cavity [1]. Nonetheless the incidence of scar endometriosis is found to be 0.03% to 0.15% in different studies; scar endometriosis located inside the uterine wall is much rarer and is difficult to diagnose [2]. The symptoms are often nonspecific. Non-ovarian endometriomas typically present as a slow-growing, painful mass inside or around the site of previous surgery concurrent to menstrual cycle [3].

## Case Report

A 23-year-old gravida 0, parity 0 women admitted to the present clinic with the complaints of pelvic pain during her menstruation periods for two years. Her menstruation was lasting one day. Her medical history revealed unremarkable except cesarean section, performed four years prior. Pelvic examination was normal. Transvaginal ultrasound revealed a 15-mm, regular, cystic mass in the uterine cavity placed in the previous cesarean incision (Figure 1). During operative hysteroscopy a cystic mass approximately 2 cm at the site was detected. The cyst was full of chocolate-like endometriotic fluid (Figure 2). The cyst was hysteroscopically drained and endometriotic scar base was cauterized (Figure 3). One week after surgery, transvaginal ultrasound revealed normal uterine appearance (Figure 4).

## Discussion

Although most frequently found in the pelvis, reports citing extrapelvic endometrial locations range from the lungs to the extremities. Incisional or scar endometriosis has also been described, however, with a much rarer incidence [4]. The reported incidence of abdominal scar endometriosis following hysterectomy is 1.08 %, whereas after cesarean section the

incidence is 0.03 – 0.4 % [5]. However, endometriosis of the uterine wall scar is an extremely rare entity, hence no statistics are available regarding its incidence and prevalence [6]. Many theories of the cause of scar endometriosis have been postulated; however, the most generally accepted theory is the iatrogenic transplantation of endometrial implants to the wound edge during an abdominal or pelvic surgery [7]. The presence of endometriotic deposits in previous cesarean section scars in hysterectomy specimens is likely to have been under-reported by pathologists. In a retrospective study, analyses of hysterectomy specimens for the endometriosis confined to cesarean scar revealed an incidence of 28% [8].

Sholapurkar *et al.* published a case with severe life threatening hemorrhage six weeks after cesarean due to uterine scar endometriosis [8]. In the literature, severe pelvic pain, dyspareunia, and menorrhagia has also been published as complaints. Uterine rupture at the third trimester of pregnancy in nulliparous was reported after endocervical endometriotic cyst excision in the literature. However cesarean is not indicated after cervical cystic lesion excision; previously ruptured cervical endometriosis may be considered as indication for cesarean section [9]. Cervical smears in cases of cervical endometriosis may be misinterpreted as high-grade intraepithelial lesions, atypical glandular cells, and adenocarcinoma in situ [10].

Management includes both surgical excision and hormonal suppression. Oral contraceptives, progestational, and androgenic agents are agents for medical therapy [11]. It is believed that hormonal suppression is only partially effective and surgical excision of the scar is the definitive treatment [12].

In conclusion, the cystic masses at the site of previous cesarean section should give an impression regarding incision endometriosis. Hysteroscopic excision is a minimally inva-

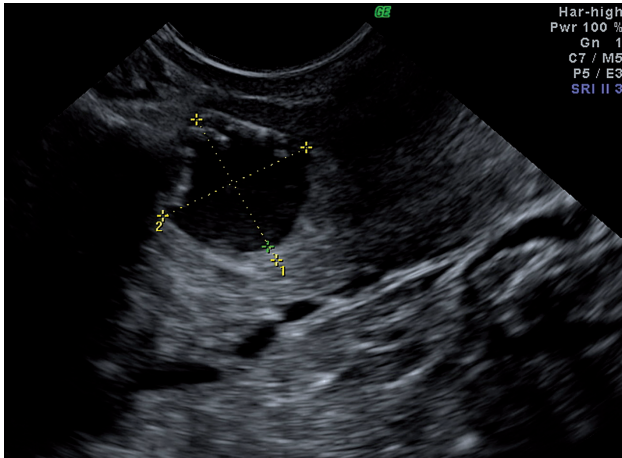


Figure 1. — Ultrasonographic view of the cystic mass at the site of cesarean scar.

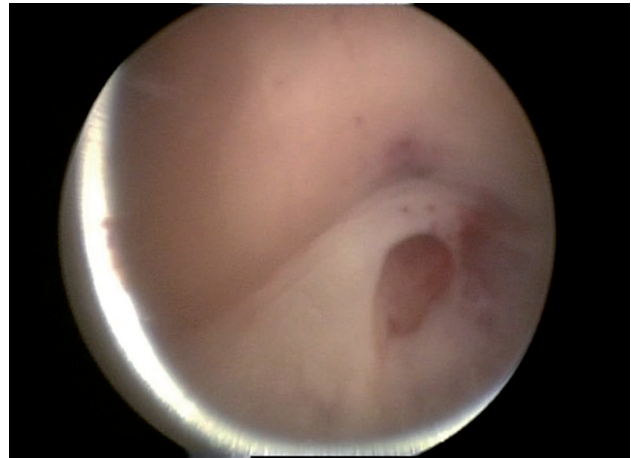


Figure 2. — Hysteroscopic view of the cystic mass.

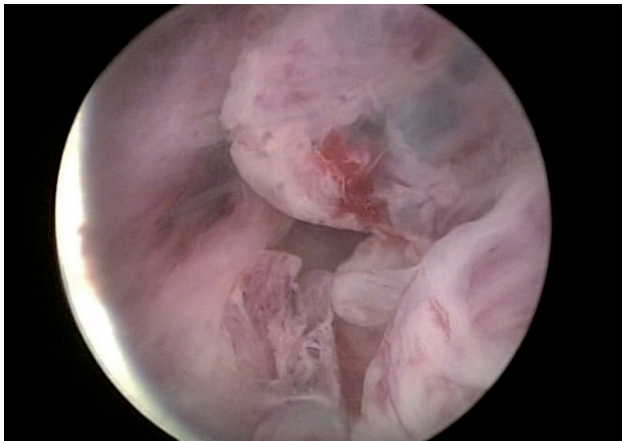


Figure 3. — View after excision.

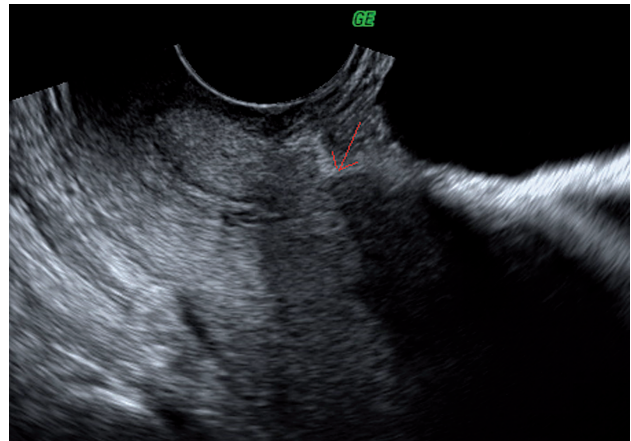


Figure 4. — Ultrasonographic appearance one week from operation.

sive technique which is satisfactory in patients with incision endometriosis.

## References

- [1] Danielpour P.J., Layke J.C., Durie N., Glickman L.T.: "Scar endometriosis - a rare cause for a painful scar: A case report and review of the literature". *Can. J. Plast. Surg.*, 2010, 18, 19.
- [2] Kaloo P., Reid G., Wong F.: "Caesarean section scar endometriosis: two cases of recurrent disease and a literature review". *J. Obstet. Gynaecol.*, 2002, 42, 218.
- [3] Cevrioglu S., Yilmaz S., Yilmazer M., Tokyol Ç.: "Endometriosis in cesarean scar: A case presentation and literature review". *T. Klin. Jinek. Obst.*, 2004, 14, 44.
- [4] Francica G., Giardiello C., Angelone G., Cristiano S., Finelli R., Tramontano G.: "Abdominal wall endometriomas near cesarean delivery scars: sonographic and color doppler findings in a series of 12 patients". *J. Ultrasound. Med.*, 2003, 22, 1041.
- [5] Goel P., Sood S.S., Dalal A., Romilla.: "Caesarean scar endometriosis—report of two cases". *Indian J. Med. Sci.*, 2005, 59, 495.
- [6] Kafkasli A., Franklin R.R., Sauls D.: "Endometriosis in the uterine wall cesarean section scar". *Gynecol. Obstet. Invest.*, 1996, 42, 211.
- [7] Seki A., Maeshima A., Nakagawa H., Shiraishi J., Murata Y., Arai H., et al.: "A subserosal uterus-like mass presenting after a sliding hernia of the ovary and endometriosis: a rare entity with a discussion of the histogenesis". *Fertil. Steril.*, 2011, 95, 1788.e15. Epub 2010 Dec 23.
- [8] Sholapurkar S.L., Sharp N.C., Hirschowitz L.: "Aust N Z Life-threatening uterine haemorrhage six weeks after Caesarean section due to uterine scar endometriosis: case report and review of literature". *J. Obstet. Gynaecol.*, 2005, 45, 256.
- [9] Chen Z.H., Chen M., Tsai H.D., Wu C.H.: "Intrapartum uterine rupture associated with a scarred cervix because of a previous rupture of cystic cervical endometriosis". *Taiwan J. Obstet. Gynecol.*, 2011, 50, 95.
- [10] Phadnis S.V., Doshi J.S., Ogunnaike O., Coady A., Padwick M., Sanusi F.A.: "Cervical endometriosis: a diagnostic and management dilemma". *Arch. Gynecol. Obstet.*, 2005, 272, 289.
- [11] Wolf G.C., Singh K.B.: "Caesarean scar endometriosis: a review". *Obstet. Gynecol. Surv.*, 1989, 44, 89.
- [12] Scholefield H.J., Sajjad Y., Morgan P.R.: "Cutaneous endometriosis and its association with caesarean section and gynaecological procedures". *J. Obstet. Gynaecol.*, 2002, 22, 553.

Address reprint requests to:

G. GÖNENÇ, M.D.

Mehmetçik Cad. Hüseyin Cahit Yalçın Sok.No:1

Avrupa Florence Nightingale Hastanesi,

Kadın Hastalıkları ve Doğum Anabilim Dalı.

Fulya, Mecidiyeköy, İstanbul (Turkey)

e-mail: gokcenur82@hotmail.com