

Symptomatic Chronic Uterine Dehiscence: A Different Approach, Non-surgical Successful Closure

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About the Author



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Case

A 37-year-old gravida 3, para 2 with suspected abruption at 36 5/7 weeks gestation had an emergency repeat lower segment cesarean section. Her obstetrical history was significant for a normal vaginal delivery followed by a lower segment cesarean section with two layer closure for a suspected placenta previa. She had multiple cardiac surgeries including patent ductus arteriosus ligation, pulmonary

stenosis repair, and Konno procedure, replacement of aortic valve with prosthetic St. Jude valve, requiring several transfusions. She was on therapeutic dose of subcutaneous low-molecular-weight heparin (Enoxaparin). At the emergency cesarean section partial abruption of placenta and markedly thinned out echymotic scar of previous urgent cesarean section were noted. During cesarean section, scar which was found to be friable, was repaired in 2 layers of 0 Vicryl suture: the first, locking and the second, imbricating the first. She also underwent tubal ligation by Pomeroy method, and then her anticoagulation was resumed 6 h post-op. Her post-operative period was uneventful.

Three months following her delivery, she presented with continued periodic spotting and bleeding. She was then on warfarin and INR in low 2's. There was no chorionic tissue on USG with thin endometrial stripe, normal beta HCG < 5, TSH 2.4, and no local source of bleeding. She received progestogens in an attempt to control bleeding along with oral iron therapy. She returned 6 months post-partum for continuous bleeding, when a bulky firm lower

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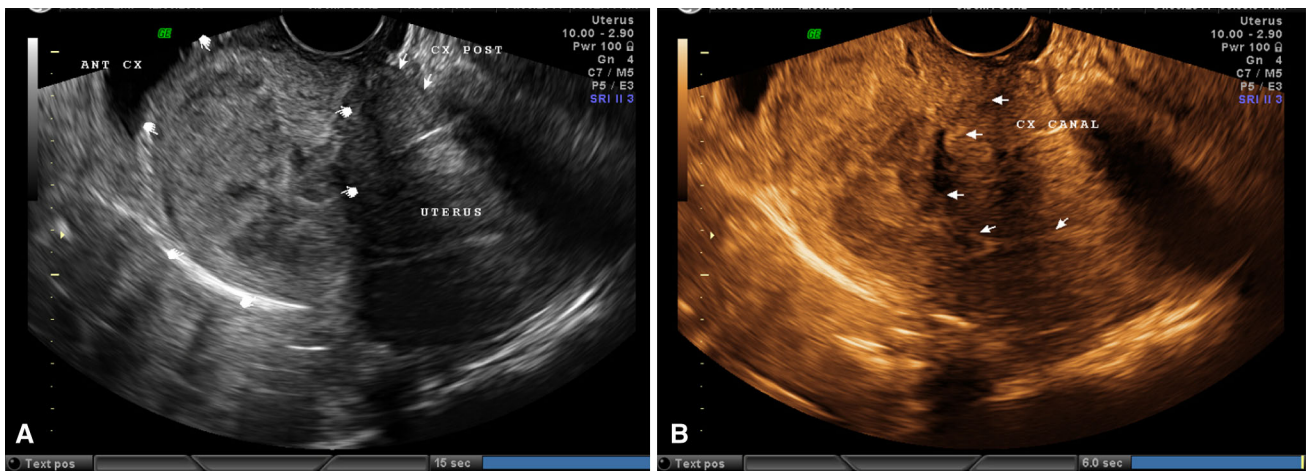


Fig. 1 Transvaginal USG view of retroverted uterus with normal appearing endometrial stripe and heterogenous lower segment mass. **a**

Arrows point to contours of mass. b Arrows follow length of cervical canal

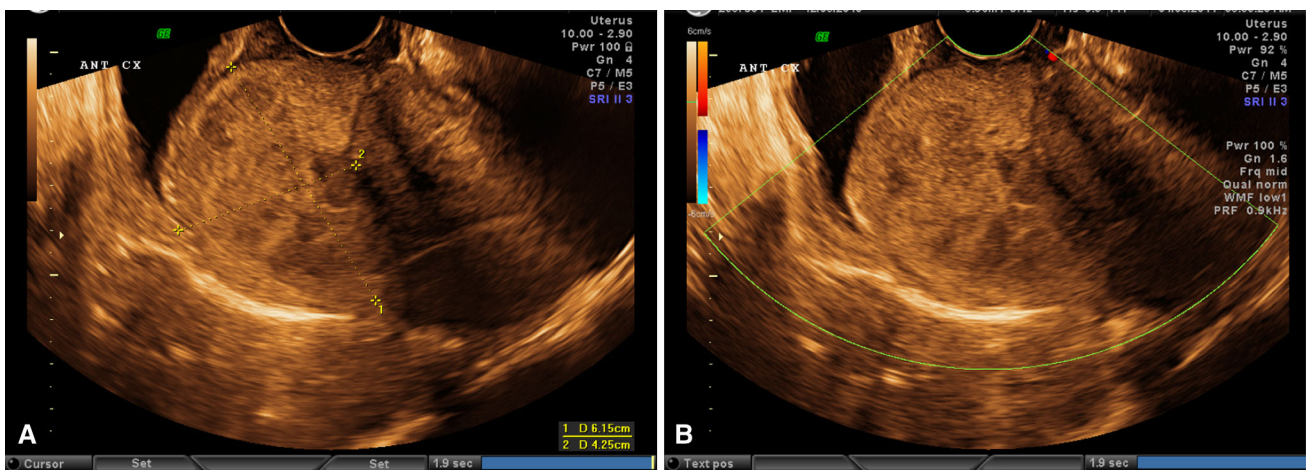


Fig. 2 Lower segment mass. **a** Dimensions of heterogenous mass. **b** No active blood flow noted in mass

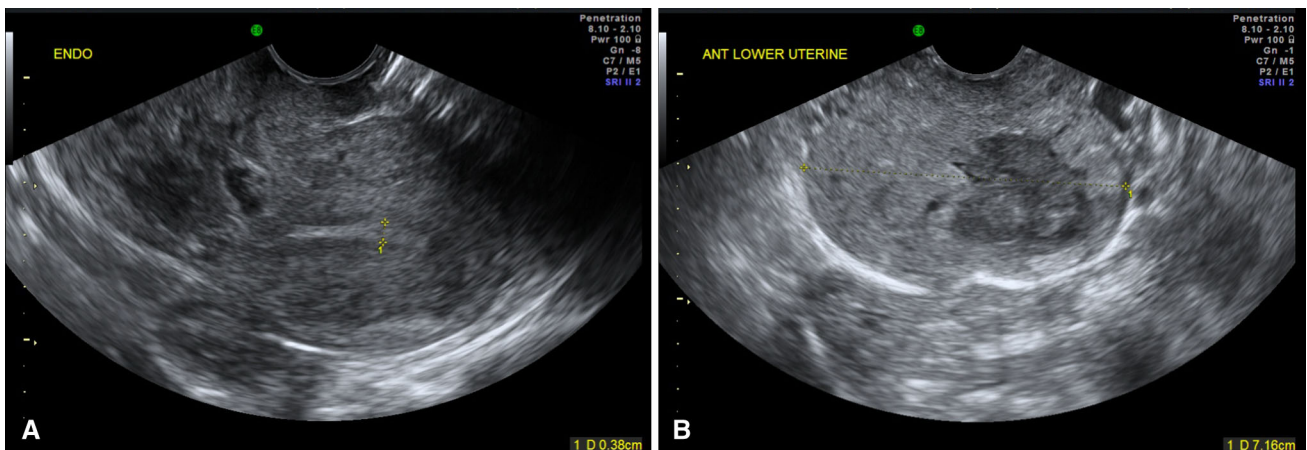


Fig. 3 Rescan 1 month later with normal appearing endometrial cavity (**a**) and persistence of heterogenous lower segment mass (**b**)

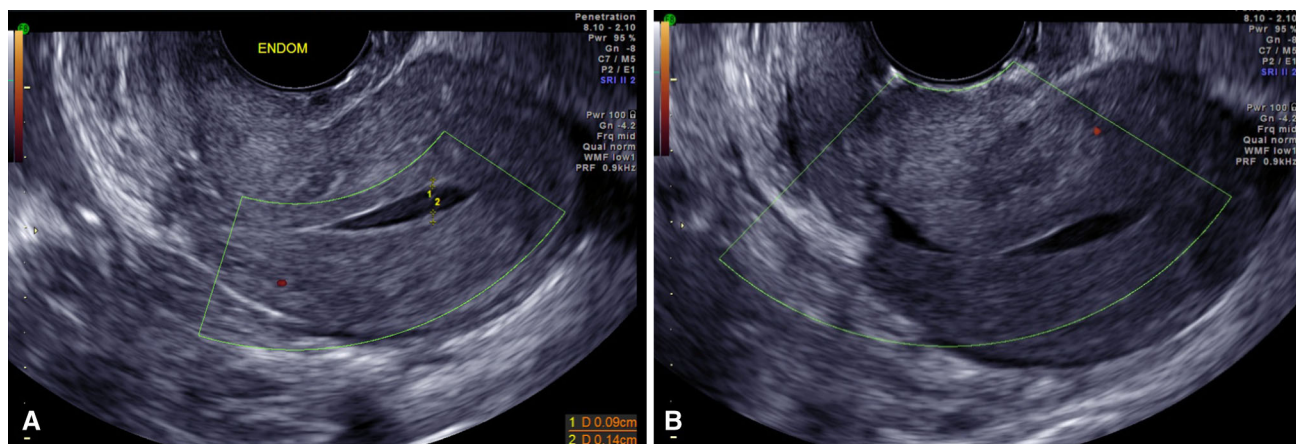


Fig. 4 Transvaginal USG, 2 months after completion of GnRH therapy. Notice absence of lower segment mass, normal endometrium

uterine mass on clinical exam and no vascularity on colored Doppler USG study (Figs. 1, 2) were noted. In view of her multiple co-morbidities including post-transfusion Hepatitis C, on Interferon, Ribavirin, and Victrelis; therapeutic anticoagulation, and patient preference, operative procedure or further waiting were not a options. A presumptive diagnosis was collected from a poorly healed lower uterine segment incision with inadequate drainage. We decided to stop her menstruation with intent of spontaneous healing of constantly ‘irritated scar’ with no more menstrual blood, and the collected menstrual blood will then gradually drain.

She received monthly administration of intramuscular GNRH analog of 3.75 mg for a period of 6 months. Two months later, she had an acute episode of lower abdominal pain and passage of large amount of altered blood—expulsion of the collection. Her platelet count was 102,000 and INR 2.3. Menstrual bleeding stopped (Fig. 3). Her normal menstrual periods were resumed 2 months after stopping GnRH therapy, and USG was normal (Fig. 4). The patient now has no gynecological complaints, 4 ½ years after her last cesarean delivery. Post-GnRH analog-induced amenorrhoea stopped constant irritation of the uterine scar dehiscence and promoted its healing by fibrosis.

Comment

Healing of a cesarean section scar is influenced by a number of factors, including unique physiology and anatomy of a pregnant and puerperal uterus, indication for a previous section and postpartum course, implantation of placenta and integrity of previous section scar, layers of repair of the incision, possible role of suturing material, post-operative infection, and even therapeutic anticoagulation in immediate post-op period.

In this patient, we excluded choriocarcinoma, residual placental tissue, thyroid dysfunction or ovarian pathology, and local lesions as etiology of her bleeding. Altering her anticoagulant therapy was not an option. Identification of a mass, encroaching onto the bladder, led us to the diagnosis of gradual collection in the form of a utero-peritoneal pouch fistula as a result of poor healing of cesarean scar. Although surgical evacuation and possible hysterectomy for this continuous bleeding because of uncertain diagnosis have been recommended in the literature [1], we considered a conservative approach with patient’s preference. The literature search in various search engines identified following case reports. Two patients underwent hysterectomy, and the pathology specimens showed different characteristics [1, 2]. Vascular malformation with a thrombus in one of the veins in scar region was seen in one [1] patient, who presented with massive bleeding, requiring several units of blood transfusion. This case was published in the pre-ultrasound era with limited imaging technology. Color Doppler hysterosonography identified utero-peritoneal fistula caused by uterine trauma during curettage [3] and bladder flap hematoma identified by USG [4].

Our patient was responded to GnRH analog, her bleeding stopped, and she recovered from chronic blood loss with spontaneous healing of this lower segment defect, avoiding a major surgery. Excision of such defective uterine scar or a so-called fistulous tract and repair—hysteroplasty by laparoscopy or laparotomy, another option [5], albeit a surgical one, was described in a patient, desirous of a future pregnancy. Such patients should be managed as cases of previous rupture of the uterus and undergo an elective cesarean delivery. We elected a non-surgical route in this high-risk patient with long-standing symptoms.

Compliance with ethical requirements and Conflict of interest Since this is a case report, it is not necessary to obtain

permission from ethics committee. Cases, of which managements are questionable, are reviewed; however, this case report does not fall in that category. All persons gave their informed consent prior to their inclusion in the study. Details that disclose the identity of the subjects under study is omitted.

References

1. Stewart KS, Evans TW. Recurrent bleeding from the lower segment scar—a late complication of cesarean section. *Obstet Gynaecol.* 1975;85:682–6.
2. Royo P, Manero MG, Olartecoechea B, et al. Two dimensional power Doppler-three-dimensional ultrasound imaging of a cesarean section dehiscence with utero-peritoneal fistula: a case report. *J Med Case Rep.* 2009;3(1):42.
3. Guimaraes Filho HA, da Costa LL, Araujo E Jr, et al. Diagnosis of utero-peritoneal fistula through color Doppler hysterosonography. *Arch Gynecol Obstet.* 2007;276(1):85–6.
4. Baker ME, Bowie JD, Killam AP. Sonography of post-cesarean section bladder flap hematoma. *Am J Roentgenol.* 1985;144:754–9.
5. Jacobson MT, Osias J, Velasco A, et al. Repair of a utero-peritoneal fistula. *JSL.* 2003;7(4):367–9.