

Conservative Management of Infected Postpartum Uterine Dehiscence after Cesarean Section

Ahmed Samy El-Agwany*

Department of Obstetrics and Gynecology, Faculty of Medicine, Alexandria University, Alexandria, Egypt

Abstract

There is an increase in cesarean rates worldwide. Parallel to this, the complications increased. Among these complications, uterine dehiscence and pelvic hematoma with abscess collection have increased. Diagnosis using methods such as ultrasonography, magnetic resonance imaging, and computer-aided tomography can be made. Treatment includes resuturing the uterine incision line, hysterectomy, or conservative treatment accompanied by broad-spectrum antibiotics administration. We evaluated three cases that were diagnosed by ultrasound as a dehiscent scar postpartum after cesarean section and they were managed conservatively with regular follow-up.

Keywords: Cesarean section, conservative treatment, ultrasonography, uterine dehiscence

INTRODUCTION

There has been an increase in the rate of cesarean section performed worldwide recently with an increase in complications. These complications include infection and dehiscence, hemorrhage, and hysterectomy in the short term, as well as long-term problems such as uterine scar dehiscence, placental adhesion anomalies, chronic pelvic pain, pelvic adhesion, and menstrual disorders.^[1-3] Uterine dehiscence is rare. Its frequency is between 0.06% and 3.8%.^[4] If uterine dehiscence leads to severe infection, laparotomy should be performed.^[5] During laparotomy, incision line resuturing may be attempted.^[6] In the presence of endomyometritis and abscess, hysterectomy is recommended.^[7] This paper examines the treatment of three patients diagnosed with uterine dehiscence in the puerperium after cesarean section. They were treated with a conservative approach.

CASE REPORTS

Case 1

A 20-year-old G1P1 woman who underwent a cesarean section about 3 weeks before admission. She was admitted complaining of abdominal pain and purulent vaginal discharge skin. The patient's general condition was good. There was a clean incision line. The uterine involution was

normal. Ultrasonography showed a dehiscence in lower uterine segment at the site of the uterine scar with fluid inside and hematoma surrounding posterior surface of the uterus extending to the fundus about 7 cm in dimensions. Both ovaries looked normal. There was no free fluid in the pouch of Douglas. Parietal wall collection was about 10 cm [Figure 1]. Laboratory results were normal. The patient was diagnosed with postpartum septic uterine dehiscence. She received two types of antibiotics intravenously for 72 h parenterally then oral treatment for 2 weeks (cephalosporins and metronidazole) with follow up weekly by clinical parameters and ultrasound. Parietal wall collection (liquefied infected hematoma with dark non clotted altered blood) was persistent over 1 week so was drained by incision. On ultrasonographic monitoring of the patient, the hematoma liquefied and decreased in size and the dehiscence obliterated. She was discharged after 1 month. The patient was monitored for 6 months and had no problems.

Case 2

A 25-year-old G1P1 woman who had a cesarean section 14 days before at a private clinic was complaining of

Address for correspondence: Dr. Ahmed Samy El-Agwany,
Department of Obstetrics and Gynecology, El-Shatby Maternity University
Hospital, Alexandria University, Alexandria, Egypt.
E-mail: ahmedsamyagwany@gmail.com, ahmed.elagwany@alexmed.edu.eg

Received: 05-07-2017 Accepted: 01-12-2017 Available Online: 28-03-2018

Access this article online

Quick Response Code:



Website:
www.jmuonline.org

DOI:
10.4103/JMU.JMU_5_18

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: El-Agwany AS. Conservative management of infected postpartum uterine dehiscence after cesarean section. J Med Ultrasound 2018;26:59-61.

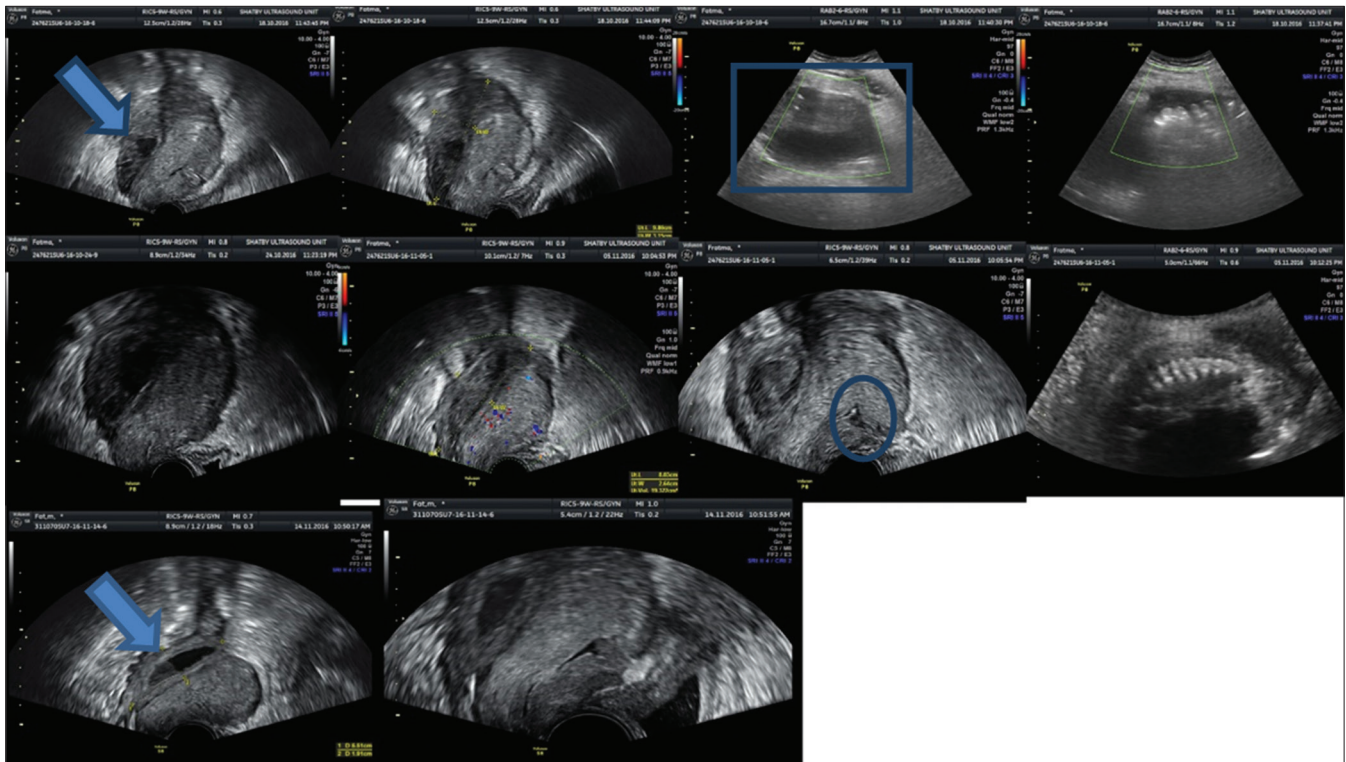


Figure 1: Ultrasound showing dehiscent scar (circle) with hematoma (arrow) and parietal wall collection (square). Follow-up of the liquefied hematoma with healed dehiscence over 3 week

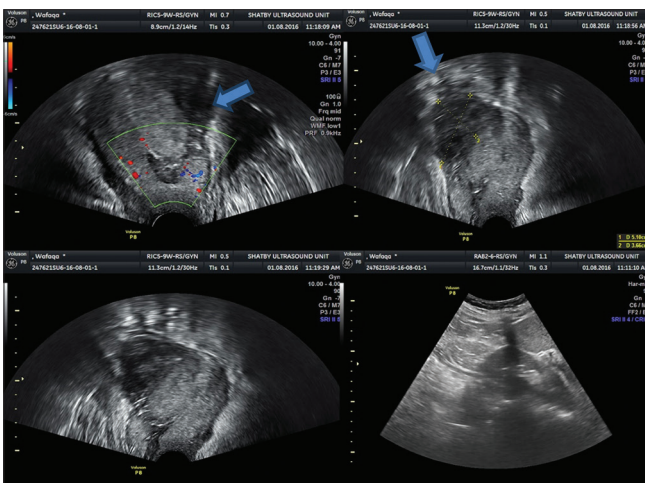


Figure 2: Dehiscence scar (first arrow) with uterovesical collection (second arrow) with no free fluid collection

abdominal pain and abnormal vaginal discharge. Ultrasound showed a uterine dehiscence in lower uterine segment at the site of cesarean section with hematoma in uterovesical pouch about 5 cm communicating with fluid in the uterus through dehiscence [Figure 2]. The patient had no fever. She was in a generally stable condition. The patient received antibiotics therapy and was under observation. The patient was monitored for infection markers (C-reactive protein and leukocyte count) and underwent abdominal ultrasonography weekly. Over 3 weeks, the collection resolved with fibrosis

of the dehiscence and the patient was discharged. The patient was monitored for 6 months with no sequel.

Case 3

A 25-year-old G1P1 who had a cesarean section 14 days before outside our hospital was complaining of abdominal pain and abnormal vaginal discharge. Ultrasonography showed fluid collection in the uterus with dehiscent uterine scar [Figure 3]. The patient was diagnosed with infected uterine dehiscence. She received antibiotics and followed conservatively. The patient was monitored as above. After 2 weeks, the patient was discharged.

DISCUSSION

Postpartum uterine dehiscence is the opening of the incision line after cesarean section. It is a rare clinical condition. Risk factors include diabetes, emergency surgery, infection, suture technique, hematoma on the uterine incision line, and retrovesical hematoma.^[7] In the early postpartum period, opening of the uterine incision line leaves uterine veins open and erosion may be related to heavy postpartum bleeding.^[5] Of the 3 patients in our study, none showed any signs of heavy bleeding due to uterine dehiscence was seen in the late postpartum period, where hemostasis and uterine involution may have prevented heavy bleeding. All the studied patients did not have any associated medical disease as DM. All of them may be related to other symptoms that suggest uterine dehiscence include pelvic pain and suprapubic sensitivity due to endomyometritis.^[5] Complaints of pelvic pain after cesarean were reported from the three patients. In uterine dehiscence with fulminating infection,

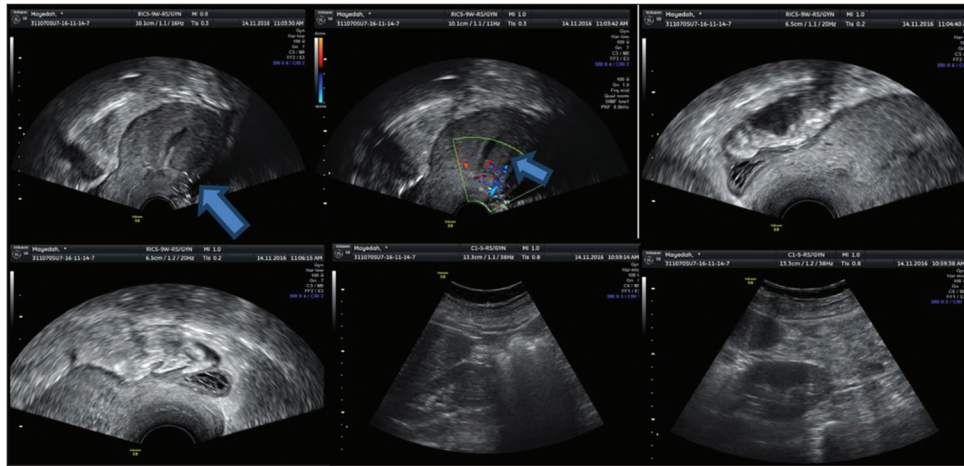


Figure 3: Poor healing of cesarean scar (first arrow) with fluid collection in the uterus (second arrow) and no fluid collection intra-abdominally

direct laparotomy is recommended.^[5] Uterine dehiscence causes a link to form uterine cavity and the abdominal cavity. Due to this opening, any infection may spread to the abdominal cavity. For this reason, patients undergoing conservative treatment should start a broad-spectrum antibiotics therapy. To diagnose uterine dehiscence, imaging techniques such as ultrasonography, magnetic resonance imaging, and computed tomography may be used. On ultrasonography, the uterine incision site will show full-thickness hypoechoic area with fluid in the uterine incision line. This is typical of uterine dehiscence. In addition, hematoma and arteriovenous malformations on the uterine incision line should be considered. Doppler ultrasonography with no flow may exclude arteriovenous malformations.^[5] These patients are recommended for cesarean section in the next pregnancy due to poor scar healing with high incidence of rupture.

CONCLUSION

Treatment of uterine dehiscence after cesarean section with no active hemorrhage, generally stable condition and no evidence of severe infection, conservative treatment accompanied by broad-spectrum antibiotic therapy can be appropriate treatment.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that name and

initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Wagner MS, Bédard MJ. Postpartum uterine wound dehiscence: A case report. *J Obstet Gynaecol Can* 2006;28:713-5.
2. Royo P, Manero MG, Olartecoechea B, Alcázar JL. 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;3:42.
3. Alwani M, Mishra S, Thakur R. Generalized peritonitis with uterine incision necrosis with dehiscence following cesarean section presenting as genitourinary fistula: A unique complication. *J Med* 2014;3:762-6.
4. Shaamash AH, Ahmed AG, Abdel Latef MM, Abdullah SA. Routine postpartum ultrasonography in the prediction of puerperal uterine complications. *Int J Gynaecol Obstet* 2007;98:93-9.
5. Sengupta Dhar R, Misra R. Postpartum uterine wound dehiscence leading to secondary PPH: Unusual sequelae. *Case Rep Obstet Gynecol* 2012;2012:154685.
6. Usta IM, Hamdi MA, Musa AA, Nassar AH. Pregnancy outcome in patients with previous uterine rupture. *Acta Obstet Gynecol Scand* 2007;86:172-6.
7. Ida A, Kubota Y, Nosaka M, Ito K, Kato H, Tsuji Y, *et al.* Successful management of a cesarean scar defect with dehiscence of the uterine incision by using wound lavage. *Case Rep Obstet Gynecol* 2014;2014:421014.