

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20252355>

Case Report

Silent complete uterine dehiscence at repeat caesarean section: a case report

Sarah Van Der Hock^{1*}, Emily Hancock², Nita Dhupar²

¹Department of Obstetrics and Gynaecology, Joan Kirner Women's and Children's Hospital - Western Health, St Albans, Victoria, Australia

²Department of Obstetrics and Gynaecology, Murrumbidgee Health, New South Wales, Australia

Received: 18 June 2025

Accepted: 14 July 2025

*Correspondence:

Dr. Sarah Van Der Hock,

E-mail: sarahvanderhock@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Uterine scar dehiscence is a rare but potentially life-threatening complication typically associated with prior caesarean deliveries. While most cases present with abdominal pain or abnormal foetal monitoring, silent complete dehiscence is rare and often only detected intraoperatively. Risk factors include multiple prior caesarean sections and short inter-delivery intervals. We report the case of a 32-years-old gravida 4 para 3 female with a history of three previous caesarean sections. She presented for elective repeat caesarean section at term. Antenatal assessments were unremarkable and she reported only minor urinary symptoms. Intraoperatively, a complete uterine dehiscence was identified, characterised by a full-thickness separation of the uterine wall without serosal involvement. This was complicated by a 7 cm bladder laceration. The bladder injury was promptly repaired and the patient received postoperative management including indwelling catheterisation, antibiotic therapy and urology follow-up. Her recovery was uneventful. This case underscores the importance of maintaining a high index of suspicion for uterine dehiscence in patients with multiple prior caesarean deliveries, even in the absence of symptoms. Early recognition and prompt surgical management are crucial to prevent severe maternal morbidity.

Keywords: Bladder injury, Caesarean section, Obstetric complications, Obstetric complications, Silent scar dehiscence, Uterine dehiscence

INTRODUCTION

Uterine dehiscence, characterised by the thinning or separation of a previous caesarean scar without complete rupture of the uterine serosa, is a rare but significant obstetric complication. Its incidence is estimated to range from 0.06% to 3.8% in women undergoing repeat caesarean deliveries.¹

While many cases present with warning signs such as abdominal pain, vaginal bleeding or abnormal foetal heart rate patterns, some cases remain entirely asymptomatic and are only discovered incidentally during caesarean section.² Silent complete uterine dehiscence is an exceptionally rare obstetric condition characterised by the full-thickness separation of the myometrium, with the serosal layer remaining intact. This condition often

presents without clinical symptoms, making diagnosis challenging until surgical intervention occurs. Risk factors associated with uterine dehiscence include multiple previous caesarean deliveries, short inter-delivery intervals and inadequate healing of the uterine scar.³ In this report, we present the case of a 32-years-old gravida 4, para 3 woman with a history of three prior caesarean sections, who underwent an elective repeat caesarean delivery.

Despite minor urinary symptoms and normal antenatal assessments, intraoperative findings revealed a complete silent uterine dehiscence complicated by a 7 cm bladder laceration. This case underscores the importance of maintaining a high index of suspicion for uterine dehiscence in patients with multiple prior caesarean deliveries, even in the absence of classic symptoms and

highlights the need for careful surgical planning and preparedness.

CASE REPORT

A 32-year-old gravida 4, para 3 female with a history of three prior lower uterine segment caesarean sections was

scheduled for an elective repeat caesarean delivery. Her antenatal course was largely uneventful, with normal foetal cardiotocography (CTG) (Figure 1) and obstetric examinations. A few days before the procedure, she reported mild urinary symptoms, including sensations of bladder fullness and discomfort, which were attributed to catheter-related issues.

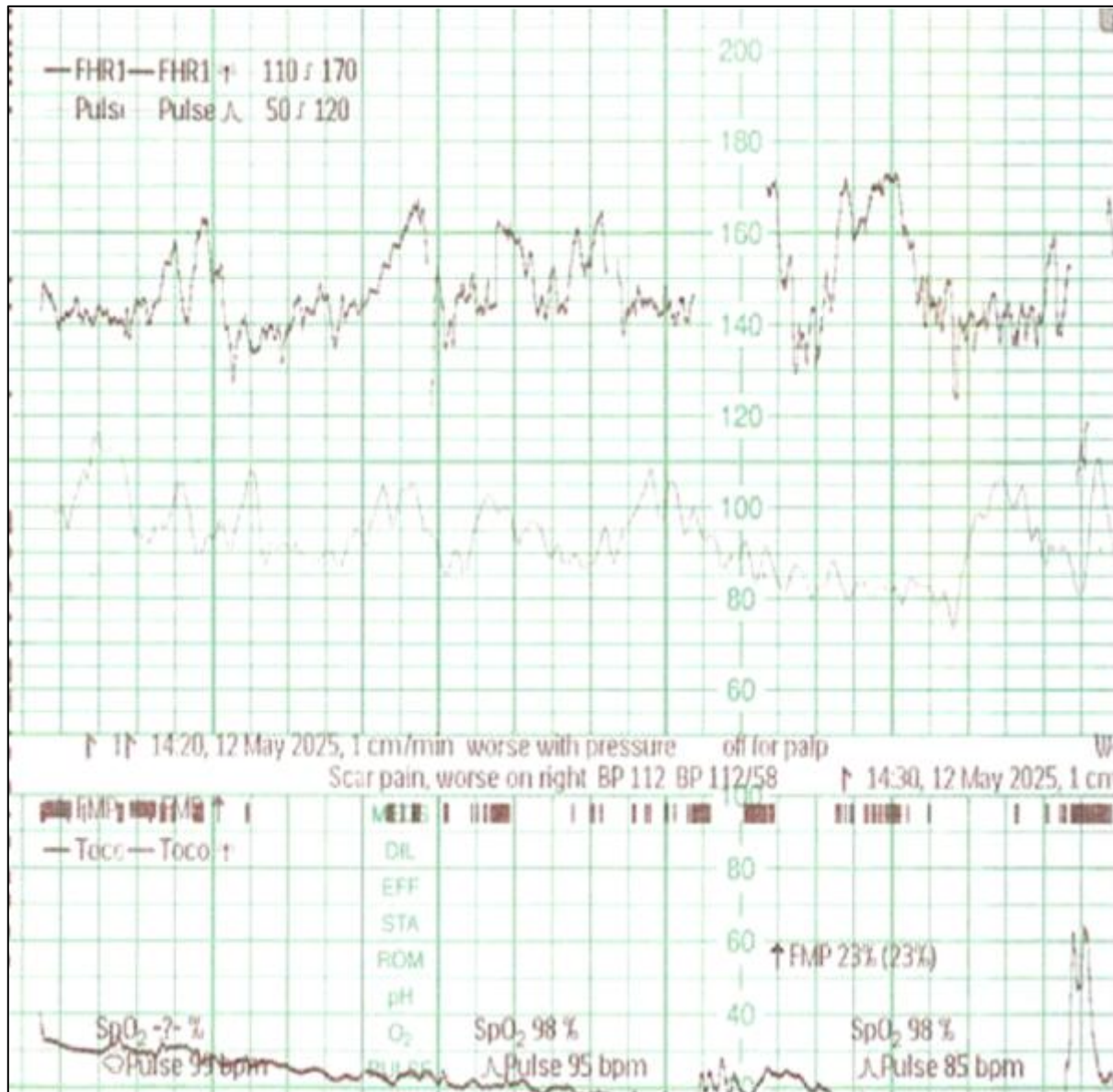


Figure 1: CTG trace recorded preoperatively, showing a reassuring foetal heart rate pattern.

On the day of surgery, she underwent caesarean delivery as the first case on the operating list. Intraoperatively, the surgical team encountered a complete uterine dehiscence, characterised by a full-thickness separation of the myometrium with only the serosal layer remaining intact overlying the fetus and membranes. During the delivery, a 7 cm bladder laceration was identified. The injury was promptly repaired by the attending urologist. Estimated blood loss was approximately 500 ml. Postoperatively, the patient was managed with an indwelling catheter, oral

antibiotics, analgesia and a follow-up plan that included a cystogram and urology outpatient review. She was discharged home in a stable condition, successfully breastfeeding and reported no further complications at follow-up.

DISCUSSION

Uterine scar dehiscence is a common complication of caesarean delivery, which increases the risk of uterine

rupture.⁴ Uterine scar dehiscence is a partial separation of the uterine muscle with the outer layer intact, while complete dehiscence or 'silent rupture', involves full-thickness muscle separation but still preserves the serosal layer. The true incidence is difficult to ascertain due to frequent lack of symptoms and incidental discovery during surgery, with one study suggesting the diagnosis was underreported by 35% in the electronic patient record system.⁵

Multiple prior caesarean sections significantly increase the risk of uterine scar dehiscence due to cumulative structural weakening and impaired healing of the uterine wall. Each surgical incision disrupts the integrity of the myometrium and subsequent healing often results in fibrotic tissue that is less elastic and more prone to mechanical failure under the stress of uterine distension or contractions. As reflected in the literature, the patient in our case report had a history of three prior lower uterine segment caesarean sections. With three or more prior caesarean deliveries, the risk is estimated to increase a further 2.0-4.0% and in some high-risk populations (e.g., short inter-delivery interval, classical incision or poor healing), it may be higher.^{6,7}

Whilst some patients may present with abdominal pain, vaginal bleeding or abnormal foetal heart rate patterns, some, like in this case, remain entirely asymptomatic or have non-specific complaints. This makes pre-operative diagnosis challenging. Previous literature highlights the potential role of imaging in the preoperative detection of uterine scar dehiscence. However, a retrospective study conducted at a tertiary centre in China reported a preoperative ultrasonographic detection rate of only 26.1%, compared to a significantly higher intraoperative detection rate of 69.6%.⁴ This leads to a diagnostic gap in the antenatal period. As a result, clinicians should maintain a high index of suspicion in high-risk patients, even when ultrasound findings appear normal.

The presented case is notable because the patient displayed only minor bladder-related symptoms, no foetal compromise and reassuring antenatal assessments, yet had a complete uterine scar dehiscence discovered at surgery. Furthermore, the intraoperative identification of a 7 cm bladder laceration underscores the risk of adjacent organ injury in the presence of dense adhesions and distorted anatomy following multiple caesarean deliveries. Prompt recognition and repair by the urology team were critical to preventing further complications such as urinary fistula or infection.

This case underscores the need for thorough preoperative assessment, comprehensive surgical planning and vigilant intraoperative preparedness in patients with multiple prior

caesarean deliveries, even in the absence of clinical symptoms. It reinforces the value of multidisciplinary support, including the timely involvement of urology specialists when complications such as bladder injury arise.

CONCLUSION

This case of silent complete uterine dehiscence in a woman with multiple prior caesarean sections highlights the diagnostic challenge posed by its subtle or absent clinical signs. Despite a clinically unremarkable antenatal course, a significant intraoperative finding was encountered, underscoring the importance of maintaining a high index of suspicion in high-risk patients. Careful surgical planning, intraoperative vigilance and timely multidisciplinary involvement are essential to managing unexpected complications and ensuring safe maternal and foetal outcomes.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Kwong FL, Hamoodi I. Postnatal diagnosis of an occult uterine scar dehiscence after three uncomplicated vaginal births after Caesarean section: A case report. *Case Reports in Women's Health.* 2020;27:203.
2. Guiliano M, Closset E, Therby D, LeGoueff F, Deruelle P, Subtil D. Signs, symptoms and complications of complete and partial uterine ruptures during pregnancy and delivery. *Eur J Obstet Gynecol Reprod Biol.* 2014;179:130-4.
3. Figueiró-Filho EA, Gomez JM, Farine D. Risk factors associated with uterine rupture and dehiscence: a cross-sectional Canadian study. *Revista Brasil Ginecol Obstet.* 2022;43:820-5.
4. Zhu Z, Li H, Zhang J. Uterine dehiscence in pregnant with previous caesarean delivery. *Ann Med.* 2021;53:1266-70.
5. Fogelberg M, Baranov A, Herbst A, Vikhareva O. Underreporting of complete uterine rupture and uterine dehiscence in women with previous cesarean section. *J Maternal-Fetal Neonat Med.* 2017;30:2058-61.
6. Bujold E, Gauthier RJ. Risk of uterine rupture associated with an interdelivery interval between 18 and 24 months. *Obstet Gynecol.* 2010;115:1003-6.
7. Ofir K, Sheiner E, Levy A, Katz M, Mazor M. Uterine rupture: risk factors and pregnancy outcome. *American J Obst Gynecol.* 2003;189:1042-6.

Cite this article as: Van Der Hock S, Hancock E, Dhupar N. Silent complete uterine dehiscence at repeat caesarean section: a case report. *Int J Reprod Contracept Obstet Gynecol* 2025;14:2754-6.