

Utero-cutaneous Fistula Following Cesarean Section

Matthew Chum Taingson, Joel A. Adze, Stephen B. Bature, Amina Mohammed Durosinlorun,
Mohammed Caleb, Abubakar Amina

Department of Obstetrics and Gynaecology, Faculty of Medicine, Barau Dikko Teaching Hospital, Kaduna State University,
Kaduna, Nigeria

ABSTRACT

Utero-cutaneous fistula is an extremely rare entity, and only a few case reports have been published. Most Utero-cutaneous fistulas are secondary to postpartum or postoperative complications. A 23-year-old woman, para 1⁺⁰, not alive, noticed bleeding through her abdominal incision scar, following a cesarean section for retained second twin 5 years before presentation. A fistulous tract was demonstrated at examination under anesthesia with a probe, between the uterus and wound. The patient had laparotomy with excision of the fistulous tract and uterine repair; she did well postoperatively. Although our patient had a successful surgical treatment, prevention of utero-cutaneous fistula by meticulous technique during the primary surgical procedure and measures to prevent postoperative sepsis would have spared this patient the distress, cost, and risk of a second operation.

Key words: Cesarean section, uterine repair, utero cutaneous fistula

INTRODUCTION

Utero-cutaneous fistula is a rare occurrence. It is an abnormal communication between two epithelial surfaces, the uterus and skin.^[1] Most utero-cutaneous fistulas develop secondary to postpartum or postoperative complications. Other possible causes of this rare occurrence are intrauterine devices and endometriosis.^[2]

CASE REPORT

Mrs. S. S. a 23-year-old para 1⁺⁰ housewife with no formal education, presented at the Barau Dikko Teaching Hospital Kaduna State, Nigeria, on 23rd of October 2015, with a 5-year history of bloody discharge during her menstrual period from the

mid-line incision scar of a cesarean section, she had had for a retained twin. Surgery was complicated by postoperative wound sepsis. She went into preterm labor at 30 weeks and delivered the leading twin male stillbirth spontaneously. However, the second twin was retained and had to be delivered by an emergency cesarean section 20 h later. The second twin, also a male, died 25 h after birth.

She attained menarche at the age of 13 years and menstruated for 5 days in a 28-day regular cycle. She had no prior problems with irregular or heavy menses.

On examination, she was a young woman afebrile (temp 37°C), anicteric, and not pale. There was no pedal edema. The respiratory rate was 22 cycles/min. Her pulse rate was 90 beats per min, regular and good volume, and blood pressure 110/70 mmHg.

Abdominal examination revealed a low midline subumbilical scar about 8 cm in length with

Address for correspondence: Dr. Matthew Chum Taingson,
Department of Obstetrics and Gynaecology, Faculty of Medicine,
Barau Dikko Teaching Hospital, Kaduna State University,
Kaduna, Nigeria.
E-mail: taingson@yahoo.com

Access this article online

Quick Response Code:



Website:

www.njsrjournal.org

DOI:

10.4103/1595-1103.194212

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Taingson MC, Adze JA, Bature SB, Durosinlorun AM, Caleb M, Amina A. Utero-cutaneous fistula following cesarean section. Niger J Surg Res 2016;17:58-60.

puckering in its midpoint. A fistulous opening about 1–2 mm in diameter was at the midpoint of the scar [Figure 1a and b]. Pelvic examination revealed no abnormal findings.

On investigation, her hematocrit was 31%, and her serum electrolytes, urea, and creatinine levels were essentially normal. Abdominopelvic scan showed an empty uterus 3 cm in length, with endometrial plate visualized and adnexa normal. Hysterosalpingography (HSG) showed an elongated cervix with uterine cavity located around the second and third lumbar vertebra, fallopian tubes difficult to assess, but free contrast spillage bilaterally noted.

She had laparotomy under general anesthesia. Intraoperative, the bladder, a loop of small bowel, and omentum were found to be adherent to previous cesarean scar on the mid-anterior uterine wall. There was a 3-cm sinus tract extending from previous cesarean scar on the uterus to peritoneum, rectus sheath onto the skin [Figure 2a]. Adhesiolysis with the freeing of the uterus, omentum, bladder, bowel followed by fistulectomy was performed, a bluish tinge opening of the fistulous tract on the uterus was seen [Figure 2b]. The uterus was then repaired in layers [Figure 3]. She had an uneventful recovery and was discharged on postoperative day 5. She was seen at the gynecology outpatient clinic 6 weeks later, and her clinical condition was found

satisfactory. Histopathology of the fistulous tract showed fibromuscular tissue, and the tract lined by granulation tissue with nonspecific inflammation.

DISCUSSION

Utero-cutaneous fistula usually results from postpartum or postoperative complications. Most fistulae originate from trauma, or some other type of inflammatory processes that disrupt the continuity of tissues involved. The decrease in the incidence of utero-abdominal fistula may reasonably be attributed to marked decrease in the frequency of classical cesarean section in modern obstetrics.^[3,4] Utero-cutaneous fistula following lower segment cesarean section has been reported.^[5] Gupta *et al.* reported utero-cutaneous fistula which developed following septic abortion induced by laminaria tent insertion in the cervix.^[1] Review of literature also revealed possible risk factors: history of multiple abdominal surgeries, use of drains, incomplete closure of uterine wound following cesarean, intra-abdominal sepsis in previous scar, and secondary abdominal pregnancy.

In our case, the patient had a sinus at the midportion of midline scar. She might have developed this complication due to placement of the uterine scar on the upper uterine segment as the surgery was done at 30 weeks of gestation, and the lower uterine segment is not well formed at that gestational age. This site of incision is prone to adhesion formation. Ascending infection from home delivery of the first twin and

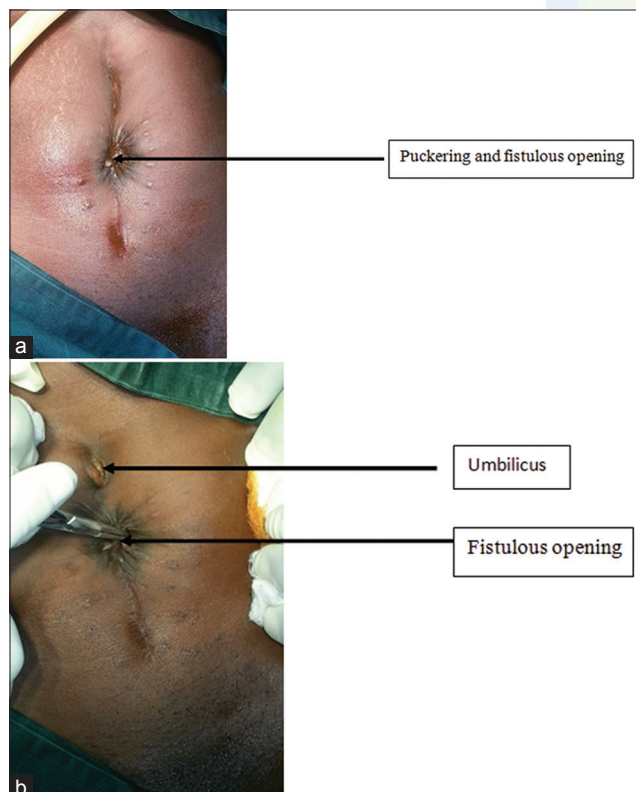


Figure 1: (a) The fistulous opening in the abdominal incision scar, (b) the fistulous opening in the abdominal incision scar

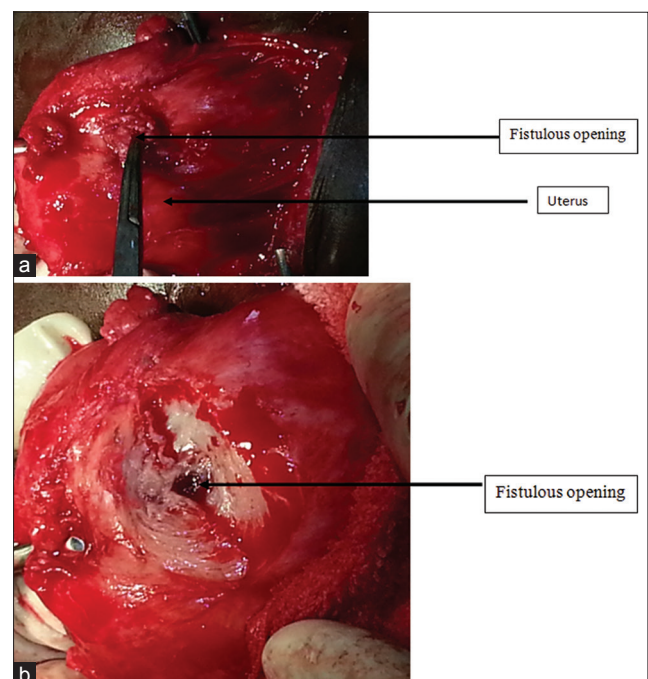


Figure 2: (a) Distal end of fistulous tract on the uterus, (b) a bluish tinge on the uterine muscle around fistulous tract



Figure 3: Uterine muscle repaired in two layers

delivery interval of about 20 h would have contributed to postoperative wound sepsis.

Demonstration of the fistulous tract can be done with a dye injected transcervically, fistulogram, HSG, contrast-enhanced computed tomography (CT) scan, and magnetic resonance imaging (MRI). Our patient had a HSG done; however, the fistulous tract was not demonstrated. This shortcoming in the use of HSG and fistulogram has been reported.^[6,7] Contrast CT scan and MRI could have depicted the tract; they were not available in our hospital at that time.

Once a fistula is diagnosed, the basic principle in treatment is obliteration of opening of fistulous tract^[8] as done in our case by excision and uterine repair.

Complete closure of the uterine wound in two layers using absorbable suture, avoid inclusion of decidua during closure, and proper tissue handling to prevent ischemia would go a long way in preventing this catastrophe.

CONCLUSION

The case highlights this rare complication of cesarean section. It also emphasizes the need for competence at cesarean section and measures to prevent postoperative sepsis.

Acknowledgment

The authors would like to express gratitude to Prof. Lydia Airede for her critical reading and comments on the case report.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Gupta SK, Shukla VK, Varma DN, Roy SK. Uterocutaneous fistula. *Postgrad Med J* 1993;69:822-3.
2. Dragoumis K, Mikos T, Zafarakas M, Assimakopoulos E, Stamatopoulos P, Bontis J. Endometriotic uterocutaneous fistula after cesarean section. A case report. *Gynecol Obstet Invest* 2004;57:90-2.
3. Dessouky DA, Bolan J. Uteroabdominal sinus following cesarean section. *Am J Obstet Gynecol* 1980;137:147-8.
4. Jain V, Jain SS. Post cesarean uterocutaneous fistula – A rare clinical entity. *J Obstet Gynecol India* 2003;53:97.
5. Yadav P, Gupta S, Singh P, Tripathi S. Successful medical management of uterocutaneous fistula. *Int J Gynaecol Obstet* 2014;124:263-4.
6. Abasiattai AM, Ibanga GJ, Akpan A, Ume KU. Post caesarean section uterocutaneous fistula: A case report. *J Womens Health Issues* 2014;3:5.
7. Lim PS, Shafiee MN, Ahmad S, Hashim Omar M. Utero-cutaneous fistula after caesarean section secondary to red degeneration of intramural fibroid. *Sex Reprod Healthc* 2012;3:95-6.
8. Yadav R, Reddi Rani P, Jayalakshmi D. Uterocutaneous fistula. *J Obstet Gynecol India* 2006;56:81-2.