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CASE REPORT

Uterine scar rupture following medical termination of pregnancy in the first trimester: a case report

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Abstract

A twenty-five-year-old woman with G2P1L1A0 at 11WOG with no ANC visits presented to the Emergency department after taking Mifepristone and Misoprostol for unwanted pregnancy with complaints of generalized pain in the abdomen and PV bleeding. Her USG revealed previous ceasarean section uterine scar rupture. An emergency exploratory laparotomy was done. The fetus was floating in the pelvic cavity on the Right side of the uterus, and the whole thickness of the uterine scar rupture was noted and repaired.

Keywords: First trimester, Mifepristone, Misoprostol, Scar Rupture

INTRODUCTION

Uterine scar rupture is a tear through the thickness of the uterine wall at the site of a prior cesarean incision.[1] Uterine scar rupture is caused by weak uterine muscles after several pregnancies, excessive use of labor-inducing agents, and prior surgical procedures on the uterus.[1,2] First-trimester uterine scar rupture is rare, and it may lead to maternal mortality and morbidity and affect future pregnancy outcomes.[3] The risk of uterine rupture is 1.3% with previous cesarean delivery and 0.05% without previous cesarean delivery.[4]

We present a case report of 25-year-old women with uterine scars and their management in this case report.

CASE REPORT

Twenty-five-year-old woman presented to the emergency department of Patan Hospital with complaints of generalized pain in the abdomen and per vaginum bleeding for 1 day. Obstetrics history was G2P1L1A0 at 11 WOG with cesarean section 5 months back. She had no antenatal visit. As the pregnancy was unwanted, she took mifepristone (200mg) and Misoprostol (800mcg PV) to terminate the pregnancy 2 days before presentation over the counter without medical consultation.

Her general condition at the time of presentation was fair. However, she looked pale, and the vital signs were within normal limits(Pulse rate 98bpm , BP 90/60 mm Hg, Temperature 98 F, RR 16 breaths per min). On examination, guarding and tenderness were present in all four quadrants of the abdomen. Dullness was present on abdominal percussion. On vaginal speculum examination, the cervix was minimally smeared with blood. On digital vaginal examination, uterus size was difficult to assess due to tenderness, all fornices were free, and cervical motion tenderness was absent.

Her USG revealed heterogenous collection anterior to the uterus continuous with intrauterine collection with a mild collection of free fluid in the pelvic cavity, likely scar rupture. Her preoperative hemoglobin was 9 gm/dl.

The patient underwent exploratory laparotomy. Intraoperative findings revealed 1 liter of blood and 500 ml of blood clots in the pelvic cavity. The fetus was floating in the pelvic cavity on the right lateral side of the uterus, as shown in Figure 1. Whole-thickness uterine scar rupture was noted, as shown in Figure 2. Bilateral fallopian tubes and ovaries were normal. Previous cesarean section scar tissue was refreshed and repaired in two layers, as shown in figure 3. Two pints of blood were transfused. Then the patient was transferred to the general gynecology ward. The patient was given Inj Ceftriaxone 1gm twice a day and Inj Metronidazole 500mg thrice a day for 3 days which was later changed to oral form She had a good postoperative recovery.

The patient was discharged 3 days later and advised for follow-up

Patient followed up on 7th post operative day, she had no fresh issues and her wound was healthy.

Figure 1. Fetus floating in the pelvic cavity

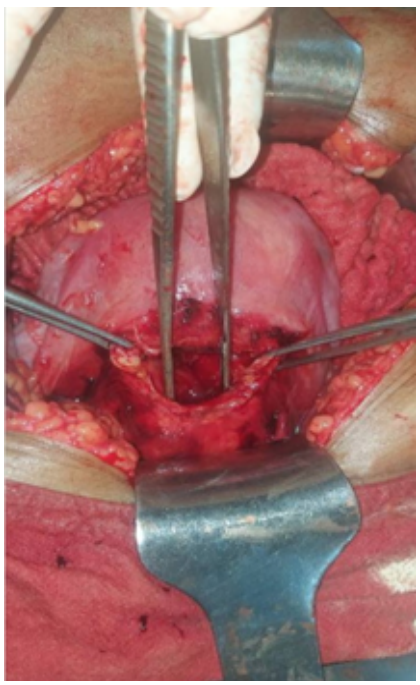

Figure 2. Ruptured uterine scar

Figure 3. Repaired scar rupture in 2 layers

DISCUSSION

While surgical abortion is safe when done appropriately, many women select medical abortion.[5] Misoprostol is a prostaglandin E1 analog, and Mifepristone is an antiprogesterone steroid that has been used as an abortion-inducing agent.[6] Misoprostol is considered safe during the first-trimester termination of pregnancy.[7] Misoprostol acts as a uterotonic agent and causes uterine smooth muscle contraction and cervical dilation. Uterine rupture is a rare complication associated with the use of misoprostol in first-trimester pregnancy termination.[7]

Various studies have explored the effects of misoprostol on the induction of spontaneous termination of pregnancy, which indicates the positive effects of this drug.[8, 9] However, the use of this drug is always accompanied by complications. Studies have indicated that when misoprostol is administered to women with a prior cesarean section, potential complications include uterine rupture, the requirement for blood transfusion, retained placenta, surgical evacuation of the uterus, inadequate response to treatment, and the need for additional measures during pregnancy termination, including hysterectomy.[10, 11] Among these complications, uterine rupture is the most dangerous and serious complication.[7]

Uterine scar ruptured after Vaginal birth after CS (VBAC) has been reported, but scar rupture following medical termination of pregnancy is rare. Uterine rupture with the use of misoprostol has been reported more frequently in multiparous women and women with uterine scars.[10]

CONCLUSION

Medical termination of pregnancy should always be performed after seeking medical advice. In developing countries, emphasizing health-seeking behavior is crucial. Educating people about the proper use of contraception after cesarean sections and counseling them on the need for birth spacing can prevent adverse outcomes. Despite an increase in contraception rates, abrupt termination without medical guidance remains risky.

DECLARATIONS

Conflict of Interest

None

Funding

None

Consent

Case report consent orm was signed by the patient.

REFERENCES

1. Fogelberg M, Baranov A, Herbst A, Vikhareva O. Underreporting of complete uterine rupture and uterine dehiscence in women with previous cesarean section. The Journal of Maternal-Fetal & Neonatal Medicine. 2017;30(17):2058-61. | PubMed | DOI |
2. Cecchini F, Tassi A, Londero AP, Baccarini G, Driul L, Xodo S. First Trimester Uterine Rupture: A Case Report and Literature Review. Int J Environ Res Public Health. 2020;17(8). | PubMed | Full Text | DOI |
3. Guise JM, Denman MA, Emeis C, Marshall N, Walker M, Fu R, et al. Vaginal birth after cesarean: new insights on maternal and neonatal outcomes. Obstet Gynecol. 2010;115(6):1267-78. | PubMed | DOI |
4. Abubeker FA, Fessehaye A, Feyssa MD, Prager S. Bucket-handle uterine rupture during second-trimester medication abortion, a rare form of rupture of the lower uterine segment and vaginal fornix: a case report. Contracept X. 2020;2:100025. | PubMed | Full Text | DOI |
5. Walters KM, Simon RA, Woessner KM, Wineinger NE, White AA. Effect of misoprostol on patients with aspirin-exacerbated respiratory disease undergoing aspirin challenge and desensitization. Ann Allergy Asthma Immunol. 2017;119(1):71-6. | PubMed | DOI |
6. Garris RE, Kirkwood CF. Misoprostol: a prostaglandin E1 analogue. Clin Pharm. 1989;8(9):627-44. | PubMed |
7. Jamali M, Bakhtiyari M, Arab F, Mirzamoradi M. Misoprostol complications in second-trimester termination of pregnancy among women with a history of more than one cesarean section. Obstet Gynecol Sci. 2020;63(3):323-9. | PubMed | Full Text | DOI |
8. Zikopoulos KA, Papanikolaou EG, Kalantaridou SN, Tsanadis GD, Plachouras NI, Dalkalitsis NA, et al. Early pregnancy termination with vaginal misoprostol before and after 42 days gestation. Hum Reprod. 2002;17(12):3079-83. | PubMed | Full Text | DOI |
9. Nath J, Jain M, Najam R, Sharma R. To compare the effectiveness and tolerability of misoprostol as a cervical ripening agent in the first-trimester abortion through sublingual and vaginal routes of administration. Bangladesh J Obstet Gynaecol. 2016;27:63-6. | Full Text |
10. Cuellar Torriente M, Steinberg WJ, Joubert G. Misoprostol use for second-trimester termination of pregnancy among women with one or more previous cesarean deliveries. Int J Gynaecol Obstet. 2017;138(1):23-7. | PubMed | DOI |
11. Kucukgoz Gulec U, Urunsak IF, Eser E, Guzel AB, Ozgunen FT, Evruke IC, et al. Misoprostol for mid-trimester termination of pregnancy in women with 1 or more prior cesarean deliveries. Int J Gynaecol Obstet. 2013;120(1):85-7. | PubMed | DOI |