Misoprostol for labor induction in the second trimester in a woman with previous three cesarean deliveries and an intrauterine death of an anencephaly

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Summary

Termination of pregnancy in the second trimester for an intrauterine death of a fetus with anencephaly in a woman with previous three cesarean sections is a difficult clinical dilemma. A 34-year-old, gravida 4, para 3 woman was admitted at 20 weeks gestation for termination of pregnancy due to intrauterine death of a fetus with anencephaly. She had had three previous cesarean sections. She received two doses of 200 mcg misoprostol tablets vaginally 12 hours apart. Then two doses of 400 mcg misoprostol tablets were given vaginally 12 hours apart. There were no uterine contractions or cervical changes. Finally, she received five doses of 400 mcg misoprostol tablets vaginally every eight hours. The patient responded after the last dose and the fetus with the placenta aborted completely without complications. The estimated blood loss was 200 ml. *Conclusion:* Misoprostol can avoid hysterotomy for termination of pregnancy in the second trimester with history of previous three cesarean sections and an intrauterine death of a fetus with anencephaly.

Key words: Misoprostol; Anencephaly; Three cesarean deliveries.

Introduction

Misoprostol is a synthetic prostaglandin E_1 analogue readily absorbable sublingually, buccally, vaginally or rectally [1]. Clinical guidelines and recommendations exist for the use of misoprostol for second trimester termination of pregnancy in the unscarred uterus, but not for the scarred uterus [2]. There is increasing body of evidence to support the safe use of misoprostol in the second trimester termination of pregnancy in women with one previous cesarean section [3, 4]. However, there are very few published reports on the use misorostol in women with previous three cesarean sections, but not with anaencephaly. Medical termination of pregnancy due to anencephaly is difficult. The aim of this case report is to present the successful use of misoprostol for termination of pregnancy in the second trimester in a woman with previous three cesarean deliveries and an intrauterine death of a fetus with anencephaly.

Case report

A 34-year-old, gravida 4, para 3 woman was admitted at 20 weeks of gestation for termination of pregnancy due to the intrauterine death of a fetus with anencephaly. She had had three previous cesarean sections. On examination, she was in good medical condition. Vaginal examination revealed closed, thick, and a 3.5 cm long cervix. The options were discussed with the couple to either terminate the pregnancy by misoprostol or by hysterotomy. The couple decided to terminate the pregnancy by misoprostol after detailed counseling of the risks and benefits. She received two doses of 200 mcg misoprostol tablets vaginally 12 hours apart. Then she received two doses of 400 mcg misoprostol vaginally 12 hours apart. There were no uterine contractions or cervical changes. Finally, she received five doses of 400 mcg misoprostol vaginally every eight hours. The patient responded six hours after the fifth dose of 400 mcg misoprostol vaginally and the fetus with the placenta were aborted completely without complications. The estimated blood loss was 200 ml.

Discussion

Second trimester abortion comprises 10-15% of the 42 million abortions that occur worldwide each year [5]. With the pandemic increase in the rates of cesarean section for various reasons, it is more likely to encounter women for termination in the second trimester with history of previous cesarean section [6]. Based on accumulating evidence, the use of misoprostol for termination in the second trimester in women with one previous cesarean section is safe. The risk of rupture of the uterus with a prior cesarean delivery was 0.28% (95% CI, 0.08 - 1.0) compared to 0.04% (95% CI, 0.02 - 0.20) in women without cesarean delivery [7]. Therefore, the International Federation of Gynecologists and Obstetricians recommended the use of misoprostol for termination of pregnancy from 18 to 26 weeks gestation in women with previous cesarean section [8]. Second trimester termination of pregnancy for intrauterine death of a fetus with anencephaly in a woman with previous three cesarean sections is a clinically difficult situation. Hysterotomy may sometimes be necessary despite the fact that it is associated with high morbidity and even mortality [9]. On the other hand, there is insufficient evidence to recommend the use of misoprostol in women with previous multiple cesarean deliveries [10]. However, Fawzy and Abdel-Hady, in

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2010, reported the use of misoprostol in 31 women with second trimester abortion and three or more cesarean sections [11]. Misoprostol was inserted vaginally every six hours, a 200-μg tablet for the first 24 hours and two tablets thereafter, until regular uterine contractions were observed, or the products of conception were expelled. Women who did not abort within 48 hours of misoprostol received additional doses of misoprostol; or received a transcervical Foley catheter with extra-amniotic PgF2α instillation 0.5 mg every two hours; or received an intravenous infusion of oxytocin. If abortion did not occur within 72 hours of the first misoprostol insertion, the treatment was considered to have failed completely and the option of hysterotomy was discussed with the patient. Vaginal abortion was achieved in 28 women (90.3%) and three women (9.3%) needed hysterotomy. When compared to a control group of 107 women with an unscarred uterus, the rate of severe hemorrhage and blood transfusion were similar in the two groups. In the current case, the longer time to achieve the termination may be due to the fact that the dead fetus had anencephaly. In addition, neither transcervical Foley catheter with extra-amniotic PgF2α instillation nor intravenous oxytocin were used. Misoprostol avoided hysterotomy for termination of pregnancy in the second trimester in a woman with previous three cesarean deliveries and intrauterine fetal death of anencephaly.

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