CASE REPORT

Cervical Priming and Scar Rupture

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Introduction

Misoprostol, a synthetic prostaglandin E1 analog, is being increasingly used for cervical priming to facilitate first trimester surgical termination and has been shown to be safe in women with previous uterine surgery [1, 2]. We report a case of uterine rupture with oral misoprostol for cervical priming before surgical evacuation in a woman with previous cesarean section.

Case Report

A 29-year-old G3P1A1 presented at 8 weeks of gestation with the complaints of severe, generalized pain in the abdomen. She had taken misoprostol (400 mcg) orally as the priming agent for suction evacuation for a missed miscarriage diagnosis. She had a cesarean section 1½ years ago.

On examination, there was pallor with blood pressure 54/40 mm, pulse 130/min, and cold clammy extremities. The abdomen was slightly distended and tender.

Hemoperitoneum and scar dehiscence were suspected on ultrasonography and her hemoglobin was 7.7 gm%.

Immediate resuscitation and laparotomy were performed with a clinical diagnosis of uterine rupture. Hemoperitoneum with a full thickness scar rupture of about 3 cm on the right side of the uterus with active bleeding (Fig. 1) was noted. A conceptus was protruding from the uterine rent. The bleeding vessel was ligated and the uterus repaired in 2 layers. Four units of packed red cells were transfused perioperatively. The postoperative period was uneventful.

Discussion

First trimester surgical termination is a safe procedure with a major complication rate of less than 1 % [1]. The risk factors for major complications like uterine perforation or cervical laceration are increasing gestational age, operator inexperience, and uterine anomalies. Cervical priming results in easier mechanical dilatation along with reduction of procedure time, blood loss, and possibly the incidence of complications [3].

Misoprostol is commonly used for cervical preparation because of its easy availability, low cost, and ease of storage and administration [1]. For cervical priming, a dose of 400 mcg orally or vaginally is recommended 3 h prior to surgical evacuation. Studies have established its overall safety as a priming agent in women with previous uterine surgery [1, 2].

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Fig. 1 Intraoperative photograph showing uterine rupture (*arrow*). The hemostatic forceps is holding a bleeder

Although rare, uterine rupture with Misoprostol may occur in women with previous cesarean section in early pregnancy as seen in this case. Since it is difficult to predict the response of the uterine scar to misoprostol, it is essential to assess each case individually to see if cervical preparation is needed at all. In expert hands, first trimester surgical evacuation is a short procedure with minimal risks.

There is insufficient data to conclude that routine cervical priming reduces the complications, and the reduced procedure time may not be clinically significant [1]. Other adverse effects of Misoprostol are pain, bleeding, and gastrointestinal disturbances. Unplanned expulsions may occur, especially when the recommended waiting time is exceeded. Hence, routine cervical preparation is not recommended. It may be considered for women at increased risk of complications due to patient factors and those in the late first trimester, though the exact gestational age at which there are clear benefits is yet unknown [3]. Counseling of the woman and informed consent are important.

References

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