Missed Abortion and Application of Misoprostol

Fehmi Zeqiri, Myrvete Paçarada, Niltene Kongjeli, Vlora Zeqiri, Gyltene Kongjeli
Gynecology/Obstetrics Clinic, University Clinical Centre of Kosova, Pristina, Kosovo

ORIGINAL PAPER

SUMMARY
Background: Spontaneous abortion is categorized as threatened, inevitable, incomplete, complete, or missed. Abortion can be further categorized as sporadic or recurrent. By definition, a missed abortion is an in utero death of the embryo or fetus before the 20th week of gestation with retained conception products. Missed abortions may also be referred to as blighted ovum or an anembryonic pregnancy.

Materials and methods: A prospective-pathological analysis of 100 missed abortion pregnancies that were diagnosed and treated at the obstetrics-gynecology clinic in Pristina were included. Patients were analyzed based on age, parity, gestational age, method of misoprostol application, effective duration from the moment of application to abortion, and adverse effects from applying misoprostol.

Results: In 25 (25%) pregnancies (15 at the end of week 10 and 10 at the end of the week XII) one tablet of misoprostol was applied to the rear vaginal fornix for 3 h, and the effect was achieved in a mean of 10 h for the first group, while it was achieved in 11 h in the second group. Thus, the average efficiency was 10.5 h. After applying three tablets of misoprostol to the rear vaginal fornix, 11 abortions occurred (44%), with the use of four tablets seven (28%) aborted, and with five tablets three (12%) aborted. There was average bleeding in 60 (67.41%) aborted pregnancies, and bleeding of the placental in 15 (16.85%). Conclusion: Administration of misoprostol to women with a missed abortion produced spontaneous expulsion and reduced the need for surgical treatment.

Key words: missed abortion, Misoprostol.

1. INTRODUCTION

Spontaneous abortion is categorized as threatened, inevitable, incomplete, complete, or missed. Abortion can be categorized further as sporadic or recurrent. By definition, a missed abortion is an in utero death of the embryo or fetus before the 20th week of gestation with retained conception products. Missed abortions may also be referred to as blighted ovum, anembryonic pregnancy, or fetal demise (1).

Causes of missed abortion are generally the same as those causing spontaneous abortions or early pregnancy failure and include anembryonic gestation (blighted ovum), fetal chromosomal abnormalities, maternal disease, embryonic anomalies, placental abnormalities, and uterine anomalies. Virtually all spontaneous abortions are preceded by a missed abortion. A rare exception is expulsion of a normal foetus because of a uterine abnormality (2).

An ultrasound diagnosis of a dead fetus during early pregnancy is based on the absence of movements of the fetal heart. Movements of a dead fetus are a result of passive fluctuation. Secondary changes in the dead fetus may occur later and indicate a complication of pregnancy. All of these depend on the time that passes from the moment of intrauterine death until the moment of diagnosis (3).

If a dead fetus remains in the womb for a long time then followed with clinical bleeding tendency emptying scarce with the burden of uterine pathology spontaneously.

However, in rare cases a spontaneous abortion may not occur after the death of the fetus. Several weeks after death, trophoblastic substances seep into the maternal circulation and may cause intravascular clotting dissemination, so maternal blood fibrinogen levels should be checked (4).

Evacuation of a missed abortion should be performed only if the maternal blood fibrinogen level is greater than 1 g/L. This can be achieved with parenteral fibrinogen or heparin, which prevents further coagulation and allows intravascular improvement in fibrinogen values.

Currently, pregnancy termination is mainly performed by so-called drug curettage using misoprostol (5). Cytotec is a synthetic analog of E1-featured prostaglandins that can be administered at any time during the pregnancy, but its effectiveness is best in early termination of pregnancies at no later than week 12 (6). The Cytotec administration modes in these cases are sublingual, vaginal, or combined. Complete removal of uterine cavity products may be delayed after applying misoprostol.

Vaginal application is more difficult than oral application, and many countries hesitate to use misoprostol vaginally for social and religious reasons. Although the surgical curettage efficiency is 98%, the possibility of complications such as pelvic infection after abortion, a performing uterus, injury of the neck, and Asherman’s syndrome favor a medical method for pregnancy termination in the first quarter of the load.

The purpose of this study:
This study analyzed the priority for applying misoprostol for a missed abortion, success in application, method of application, optimal misoprostol effi
The two misoprostol application methods and the results obtained

<table>
<thead>
<tr>
<th>Cases</th>
<th>Application method</th>
<th>Average time for an effect (h)</th>
<th># of pregnant woman that terminated</th>
<th># of pregnant woman with no effect</th>
<th>Efficiency</th>
<th>Inefficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear vaginal fornix</td>
<td>25</td>
<td>1 tablet of misoprostol every 3 h</td>
<td>10.5</td>
<td>21</td>
<td>4</td>
<td>84%</td>
</tr>
<tr>
<td>Sublingual</td>
<td>75</td>
<td>1 tablet of misoprostol every 2 h</td>
<td>11.75</td>
<td>68</td>
<td>7</td>
<td>90.6%</td>
</tr>
</tbody>
</table>

Table 1: The two misoprostol application methods and the results obtained

The patients ranged in age from 18 to 42 years. We divided the patients into two groups based on gestational week. The first group included pregnancies (n = 66) with missed abortions up to the end of week 8 of gestation, while the second group included pregnancies through week 12 (44%). The following criteria were considered: diagnostic ultrasound for a missed abortion and a clinical examination, a medical disorder that contraindicated misoprostol, adverse effects from the misoprostol, gynecological status, cervical status (length, consistency, dilatation), and inflammatory changes.

2. MATERIALS AND METHODS

One-hundred missed-abortion pregnancies who were diagnosed and treated at the obstetric-gynecology clinic in Pristina were included. Patients were analyzed based on age, parity, gestational age, method of misoprostol application, the effective duration from the moment of application to abortion, and adverse effects from applying misoprostol.

The patients were divided into two groups based on gestational week. The first group included pregnancies from the moment of application to abortion, and adverse effects from applying misoprostol.

In 75 (75%) pregnancies we applied misoprostol sublingually (in 50 by the end of week 8 of gestation). In 25 by the end of week 12). Of the 75 pregnancies, one-half tablet was supplied sublingually every 2 h. The average effective time was 11 h for the week-8 group, and 12.5 h for the week-12 group.

The average efficiency for both groups following the sublingual use of misoprostol was 11.75 h. By sublingual application of misoprostol to 75 pregnant women failed only have 7 pregnant (9.33%), of which 2 have met the first group have met while 5 of pregnant until the end of this week XII. The misoprostol efficacy of sublingual use was 90.6%.

Regarding the misoprostol impact of our research in termination of pregnancy appears that from his application in Of the 100 pregnancies, 89 (89%) resulted in termination, while 11 (11%) women did not react to the misoprostol.

On Figure 3 and 4. is presentation of all cases administered misoprostol in the rear fornix of the vagina and sublingually. The general efficacy of misoprostol was 89%.

We applied misoprostol during the first pregnancy in 25 pregnant women. The average efficiency time for sublingual and vaginal use was 9.3 h after administering three misoprostol tablets, while in 64 second pregnancies the average efficiency time was 11.4 h with...
three tablets. In the 11 other pregnancies that did not fail, there were five primipara and six multipara.

Thirteen cases (14.6%) presented with rapid bleeding, 60 (67.41%) with average bleeding, and 15 (16.85%) with bleeding. Rapid onset of bleeding occurred mostly in late-gestation pregnancies. Adverse effects with the use of misoprostol were found in 13 patients (14.6%); most common were gastrointestinal problems (10%), hypertension (3%), and cephalic (1.6%).

4. DISCUSSION

Misoprostol administration is free, fast, preferred by patients, and was effective in 89% of the pregnancies. In our clinic, 75% of the missed abortions received a sublingual application of misoprostol every 2.5 h (85.71%) and 90.6% achieved success with an efficiency of 11.75 h. Twenty-five percent of the cases were administered misoprostol to the rear vaginal fornix, and the efficiency was 84% after 10.5 h.

According to this survey generally get all the results obtained using the way of application, time intervals, full or ½ tablets appears that the use of sublingual is most successful about 6.6% compared with use in the rear vaginal fornix. The minimum time for a missed abortion in the first pregnancy was an average of 9.3 h, compared with a third pregnancy time of about about 11.4 h. The best efficiency was obtained for pregnancies at the end of week 8, at 1.5 h less than in pregnancies in weeks 9 to 12, using the same application method.

Application of misoprostol, which is a prostaglandin E analogue with uterine and cervical dilatation effects, has been useful in obstetrics and gynecology (7). The adverse effects of misoprostol are abdominal pain, fever, and diarrhea, but these effects are not evident in later pregnancies. Sublingual application of misoprostol is usually used for treatment in ambulatory patients. Bleeding and adverse effects were minimal during this study (14.6%)

Hospitalization is not necessary after misoprostol administration and the time to expulsion varies considerably. Bleeding may last for more than 14 days, with additional days of light bleeding or spotting. The woman should be advised to contact a healthcare provider in cases of heavy bleeding or signs of infection. A follow-up is recommended after 1 to 2 weeks.

We concluded that selective use of misoprostol is a primary method of terminating an early pregnancy with missed abortion pathology.

5. CONCLUSION

Vaginal administration of misoprostol to women with a missed abortion produced spontaneous expulsion of the fetus and reduced the need for surgical treatment.

REFERENCES