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ORIGINAL ARTICLE

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Vaginal misoprostol for medical evacuation of missed abortion

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OBJECTIVE(S) : To evaluate a medical method of managing missed abortions.

METHOD(S) : Eighty-four women of missed abortion confirmed by ultrasonography were counselled and informed about the medical method. A tablet of 200 µg misoprostol was inserted deep in the vagina every 4 hours for a maximium of 4 doses. Women were observed for side effects, and symptoms and signs of abortion.

RESULTS : Success rate was 95.23%. Complete abortion rate was 88.09%. Incidence of side effects was very low. The method has many advantages over surgical methods.

CONCLUSION(S) : Misoprostol is an effective medical method of evacuating the uterus with missed abortion.

Key words : missed abortion, misoprotol

Introduction

Missed abortion is a cause of worry both for the patient and the gynecologist. The gynecoloist's concern is deciding the method of terminating pregnancy. The problems are because of closed cervix, bulk of products, and the possibility of adherence of products to the uterine wall. This adherence increases the chance of incomplete evacuation and uterine performation. The commonly practiced method of managing missed abortion is dilatation and evacuation. However medical methods of abortion are now establishing themselves in clinical practice. But the drug schedule is not yet established [1]. Nonsurgical methods of terminating pregnancy using prostaglandins by various routes following administration of progesterone antagonists are successful in early gestation. Use of prostaglandin alone in missed abortion, without progesterone antagonists, is logical because death of the conceptus brings about natural fall in progesterone level [2]. There are reports of use of vaginal misoprostol alone for abortion and of claims that it is better than oral misoprostol [3]. Use of medical methods is expected to bring about gradual nontraumatic dilatation of cervix, separation of products, and their expulsion. Few cases might require surgical evacuation to remove retained products. However this becomes safe and easy because of open cervix, separated products and thick contracted myometrium. We present our experience of using misoprostol alone by vaginal route in 84 women having a missed abortion of 6 to 18 weeks gestation.

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Material and Methods

Eighty-four consecutive admissions for missed abortion were managed by using misoprostol tablets vaginally. Diagnosis of missed abortion was established by abdominal and/or vaginal ultrasonography in cases complaining of vaginal bleeding with amenorrhea and in cases where routine ultrasonography for diagnosis of pregnancy demonstrates fetal demise. Every woman was explained the medical method of pregnancy termination and her consent obtained. The prostaglandin used to initiate uterine activity was misoprostol. It is available in 100 and 200 µg tablets. One tablet of 200 µg misoprostol soaked in normal saline was placed in the vagina and this was repeated every 4 hours for a maximum of four doses. If the patient aborted earlier, further doses were not administered. All patients were hospitalized and were monitored for pulse, blood pressure, respiratory rate, abdominal cramps, vaginal bleeding, and expulsion of products of conception. Completeness of abortion was declared after speculum, vaginal and ultrasonographic examinations. Incompletely aborted cases were managed by evacuation under anesthesia. Those women who failed to abort or aborted incompletely were managed by dilatation and evacuation under anesthesia. Patients were observed for

6 hours after complete abortion or surgical evacuation before discharge from the hospital. All patients received 500 mg ampicillin intramuscularly 6 hourly till discharge.

Table 1. Patient characteristics and results

Characteristics	
Mean age (years)	23.97 ± 3.80
Mean gravidity	2.63 ± 1.06
Mean parity	1.89 ± 1.12
Mean gestational age (weeks)	9.4 ± 2.30
Mean dose of misoprostol in micrograms	461.90 ± 2.05
Induction – expulsion interval (hours)	7.17 ± 3.60
Complete abortion	74 cases (88.08%)
Incomplete abortion	6 cases (7.14%)
Failure	4 cases (4.76%)
Side effects (nausea and vomiting)	6 cases (7.14%)

Results

The characteristics of patients and results are shown in Table 1. Cumulative abortion rate is shown in Figure 1. Eighty women aborted; 74 completely and 6 incompletely, giving a success rate of 95.23%. The complete abortion rate was 88.09% (74/84). All the six women of incomplete abortion (6/84, 7.14%) were managed by evacuation under anesthesia. Four women (4/84,4.76%) failed to abort and underwent dilatation and evacuation under anesthesia. The average induction-abortion interval was 7 hours 13 minutes with a range from 3 hours 20 minutes to 15 hours 40 minutes. Only nine (10.7%) women required a fourth tablet since they had not aborted at the end of 12 hours. Side effects observed were nausea and vomiting in six cases.

Discussion

Medical methods of terminating early pregnancy usually involve administrating some agents to reduce the levels of progestogens and then giving uterotonics to bring about contractions of sensitized myometrium. Our results support the fact that antiprogestogens are not really necessary for medical termination of missed abortion, probably because progesterone levels are usually low and therefore only prostaglandins are required to initiate uterine contractions and expulsion of gesational sac.Our study demonstrates that vaginal administration of misoprostol is very effective. This may be because of higher uterine levels of misoprostol due to direct absorption from the posterior fornix and local effect of misoprostol on uterine cervix. Zalanyi [4], and Thomas and Habeebullah [1] have successfully managed missed abortions medically without progesterone antagonist. Lee et al [5] also indicate that the medical treatment of abortion with misoprostol is psychologically safe and has higher client acceptance and satisfaction rate.

Vaginal prostaglandin is a safe, effective and economic method of treating missed abortion. Medical method avoids complications related to intrauterine instrumentation, and saves expenditure on operation theater and anesthesia.

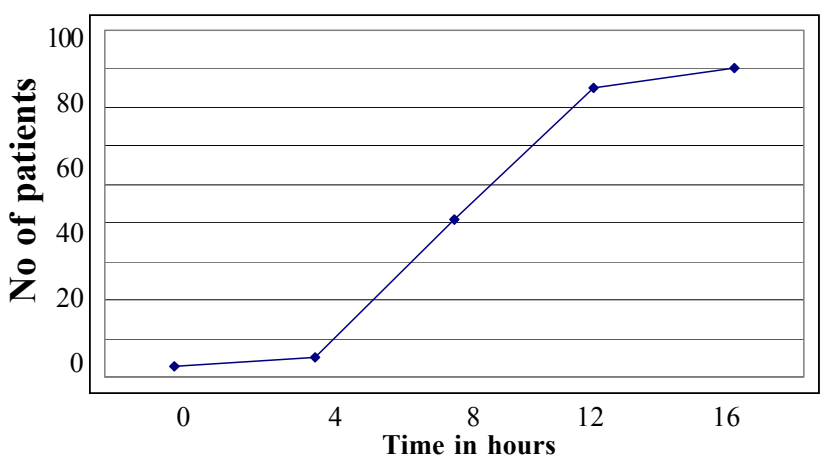

Figure 1. Cumulative abortion rate

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