

Misoprostol alone for the termination of pregnancy

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To the Editor: The administration of mifepristone, a powerful antiprogesterone, coupled with a prostaglandin, is a highly effective medical method of terminating pregnancy. Of the most widely used prostaglandins, namely gemeprost and misoprostol, the latter shows the greater promise for developing countries, since it can be administered orally and is inexpensive, stable at ambient temperatures and widely available.^{1,2}

Over the past decade, several safe and effective medical abortion regimens have been developed. The most widely used consists of 600 mg mifepristone, followed by 400 µg oral misoprostol.^{1,2} Misoprostol is a prostaglandin E¹ analogue that is widely prescribed for the prevention and treatment of gastric ulcers that may result from the long-term use of non-steroidal anti-inflammatory drugs.¹ It is currently available in more than 60 countries worldwide.^{1,2,3} Misoprostol has been used widely to induce abortion informally and off label.^{1,3,4,5} The method is widely used in Latin American countries and has apparently been used among immigrant women in the US.⁴ Some researchers suggest that misoprostol-alone abortions using the oral route should not be used or investigated further, due to poor success rates (complete abortion rates of 60% or less).⁶ Other authors mention that few studies have been done on this topic, and that these have mainly been small studies, and urge that this, as well as other routes of administration, should be investigated further.⁷

The aim of this study was to compare the following treatment regimens in the termination of pregnancy: misoprostol 400 µg vaginally six hours apart for two doses (Group I), and misoprostol 400 µg vaginally six hours apart for two doses followed by 200 µg orally two hourly for three doses (Group II) for women under 12 weeks of gestation, and misoprostol 400 µg vaginally six hours apart for three doses (Group III), with misoprostol 400 µg vaginally six hours apart for three doses followed by 200 µg orally two hours apart for three doses (Group IV) in women with gestation of 12 to 18 weeks.

Subjects and methods

For the study, 240 women from the Bloemfontein area seeking abortion at the Reproductive Health Unit of the National Hospital in Bloemfontein during 2002 were approached. Only 122 agreed to enter into the study after having been counselled. The reasons for refusal included transport money, wanting to finish quickly and the patient not wanting her family to find out. Consenting women were randomised and stratified according to gestational age by sonar and physical examination. The protocol was approved by the Ethics Committee, Faculty of Health Sciences, University of the Free State (ETOVS number 191/01).

Results

The median ages of the participating women were 23.5 and 24 years in Groups I and II respectively, and 26 years in the other two groups. In both Groups I and II, the median gestation by sonar was eight weeks, whereas it was 14 weeks in Group III and 15 weeks in Group IV. More than 70% of the patients in all groups were parity 0 or 1. Eighteen patients (14.8%) of the 122 enrolled were lost to follow up. Group I had the lowest loss to follow up (6%, compared to 15% in Group II, 21% in Group III and 20% in Group IV).

Table I shows the outcome in the patients who were followed up. The largest success rate was in Group IV, with 96% who aborted with the first treatment. This was significantly higher than in Group III (95% CI for difference 7.5%; 49.3%). The use of the second treatment was high in Group III (22%). The highest failure rate was in Group I (18%), which was close to significantly higher than Group II (95% CI for difference -0.1%; 23.2%).

For those who had a complete abortion after the first attempt (without MVA), the median time between start and the abortion was nine hours in Group I, 11 hours in Group II, 14 hours in Group III and 10 hours in Group IV.

Groups I and IV had the largest numbers of MVAs. The leading causes were retained placenta in Group IV (n=9) and failure in Group I (n=6).

We did not find side effects that were of relevance.

Discussion

A total of 14.8% of patients were lost to follow up, possibly because they went to another facility after the abortion took place, although there are no records to this effect.

The literature, which deals mainly with mifepristone-misoprostol, reports success rates of between 92% and 98% and a failure rate of 2% to 8%.^{1,2,3,8,9} However, some researchers¹⁰ have reported a 96% success rate in less than nine weeks of gestation and 83% in more than nine weeks of gestation using misoprostol (alone), 800 µg in three doses at 48 hours intervals, whereas success rates of between 25% and 37% have been found using different regimens.^{5,11}

Studies done with misoprostol alone gave

more time for the abortion to be completed – some of them up to 14 days.¹⁴ We only allowed up to 96 hours, because of fear of infection and the pressure for the patients to finish the process. The combination of the two modes in the use of misoprostol seems better for producing an abortion. Due to our large dropout percentage, which varied between the groups, we propose that larger studies should be conducted.

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Table I: Outcome

	Group I < 12 weeks Vaginal	Group II < 12 weeks Vaginal+oral	Group III 12-18 weeks Vaginal	Group IV 12-18 weeks Vaginal+oral
Complete after first attempt	22 (65%)	16 (70%)	13 (57%)	14 (58%)
MVA to complete first attempt	3 (9%)	3 (13%)	2 (9%)	9 (38%)
Complete after second attempt	2 (6%)	2 (9%)	5 (22%)	0 (0%)
MVA to complete second attempt	0 (0%)	0 (0%)	1 (4%)	0 (0%)
Failed	6 (18%)	2 (9%)	2 (9%)	1 (4%)
MVA at patient's request	1 (3%)	0 (0%)	0 (0%)	0 (0%)
TOTAL	34	23	23	24