

# The Acceptability of Medical Abortion In China, Cuba and India

By Beverly Winikoff, Irving Sivin, Kurus J. Coyaji, Evelio Cabezas, Xiao Bilian, Gu Sujuan, Du Ming-kun, Usha R. Krishna, Andrea Eschen and Charlotte Ellertson

*In a comparative study of the acceptability of medical abortion and surgical abortion among women in developing countries, patients at clinics in China, Cuba and India were allowed to choose between a surgical procedure and a medical regimen of mifepristone and misoprostol. The most common reasons women cited for choosing medical abortion were their desire to avoid surgery and general anesthesia; the reasons they mentioned most frequently for choosing surgical abortion were speed, simplicity and effectiveness. The failure rate for medical abortion varied from 5% in India to 16% in Cuba, while that for surgical abortion ranged from 0% in India to 4% in Cuba. Although side effects were more frequently reported by women who chose medical abortion, the majority of women at all sites were either satisfied or highly satisfied with their abortion experience, regardless of method (medical, 84–95%; surgical, 94–100%). At every site, medical abortion clients were significantly more likely than surgical clients to report being highly satisfied (China, 43% vs. 23%; Cuba, 59% vs. 39%; India, 69% vs. 54%), but also were more likely to report not being satisfied (China, 6% vs. 4%; Cuba, 17% vs. 7%; India, 5% vs. 0%). In China and India, women who had a medical abortion were significantly more likely than those who had a surgical abortion to say they would choose the same method again.*

(International Family Planning Perspectives, 23:73–78 & 89, 1997)

Mifepristone (often referred to as “RU 486”) is a potent antiprogesterin that has been tested as an abortifacient for more than a decade. The efficacy of mifepristone varies from 10% to 90% when used alone,<sup>1</sup> but rises to about 95% when the drug is used in combination with a low dose of prostaglandin.<sup>2</sup>

The prostaglandins used in early medical abortion regimens posed significant problems: An injectable formulation was linked to cardiovascular risks, and a vaginal suppository required refrigeration and was absorbed by different women at different rates. However, in a trial conducted among 895 French women in 1993, Peyron and colleagues established the safety

and efficacy of a regimen consisting of mifepristone and misoprostol, a commercially available, inexpensive oral prostaglandin.<sup>3</sup> This regimen, which has a success rate greater than 96%, is increasingly used in France for early medical abortion.

Although women in developed countries will certainly benefit from this innovation, it is women in developing countries who have the greatest need for safe, inexpensive and simple abortion technology. Surgical abortion performed in unsafe conditions currently results in the death of more than 70,000 women each year, nearly all of them in developing countries.<sup>4</sup> Although a few studies have investigated the use of mifepristone in developing countries,<sup>5</sup> only one small study has tested a medical abortion regimen using an oral prostaglandin in a developing country.<sup>6</sup> Misoprostol is the oral prostaglandin most likely to be used if a mifepristone regimen is adopted in developing countries, because it is inexpensive, does not need refrigeration and has been widely studied in Europe and North America.

While research efforts have created a safer, more effective and simpler regimen, surprisingly little attention has been paid to patient acceptability, provider attitudes and the effects of the new technology on service provision.<sup>7</sup> Twelve studies, all from

developed countries, have evaluated the acceptability of medical abortion.<sup>8</sup> Only one assessed the combination mifepristone-misoprostol regimen, and only one enrolled more than 100 women in the medical arm of the study. On the whole, the studies showed that the majority of women find medical abortion acceptable.

Study designs profoundly affect acceptability data, and nearly all existing acceptability data have been derived from trials designed primarily to study safety or efficacy. For example, trials that randomize women to one of several methods do not permit generalization to the population of women who would choose the method themselves. Even if a woman is randomized to the method she would have selected, she might like the method more if she chose it herself. Acceptability to women also depends on what alternative services are available outside the study context.

A study in which women are allowed to choose their own method still faces key limitations in terms of generalizability to the public. Women who participate in a clinical trial instead of opting for the available standard treatment may differ from women in the general public. Also, the experience of an abortion offered as part of a study may be different from the experience of an abortion provided routinely.

Given the potential importance of medical abortion to women in developing countries and the scarcity of data on acceptability from any part of the world, a thorough investigation into acceptability and feasibility is in order. How does the combination medical regimen stand up against surgical abortion in a comparative trial? How acceptable is medical abortion when measured by a trial that allows women to choose their method (as would be the case if medical abortion were routinely offered)? Does the combination regimen work well and appeal to women in developing countries? How feasible and acceptable is the combination regimen of medical abortion to the providers of surgical abortion in an ongoing health service? Our study, in which women were given a choice between medical and surgical abortion, is the first large-scale, com-

Beverly Winikoff is program director for reproductive health, Irving Sivin is senior scientist and Charlotte Ellertson is program associate at the Population Council, New York City. Andrea Eschen is assistant regional director for Latin America and the Caribbean at AVSC International, New York City. Kurus J. Coyaji is chair of the Department of Obstetrics and Gynecology, K. E. M. Hospital, Rasta Peth, Pune, India. Evelio Cabezas is head of obstetrics and gynecology, Ministry of Public Health, Havana, Cuba. Xiao Bilian is with the National Research Institute for Family Planning, Beijing, China. Gu Sujuan is with the Beijing Municipal Research Institute for Family Planning, Beijing, China. Du Ming-kun is with the Gynecological and Obstetrical Hospital, Department of Family Planning, Shanghai Medical University, Shanghai, China. Usha R. Krishna is with the Larsen & Toubro Medical and Welfare Centre, Mumbai, India.

parative acceptability trial to explore these questions, and the first to do so in developing countries.

## Methods

Six urban clinics in China (one in Shanghai and two in Beijing), Cuba (Havana) and India (Bombay and Pune) participated in the study, which ran from October 1991 to August 1993. All clinics had established services providing legal surgical abortion, and all followed a uniform study protocol. Women could participate if fewer than 56 days had elapsed since the start of their last menstrual period, and if they were eligible for either surgical or medical abortion and lived within one hour of the study clinic. If a woman wanted to enter the study, the provider explained the two methods of abortion, and the woman selected one. Women who could not decide were randomized to a method. In all, five women undecided between abortion methods were randomized to the medical method and one was randomized to surgical treatment. We estimate that about five women were similarly assigned randomly to surgical abortion, although assignment of women to the surgical method for other reasons precludes a definite count.

From the start, medical abortion was the more popular option among patients. Chinese investigators handled this imbalance by enrolling many women who wanted an IUD inserted after their abortion; these women were assigned to the surgical method. Because IUD insertion immediately following a surgical abortion would be expected to distort pain and bleeding data during the two-week follow-up period for surgical patients, women requesting an IUD should not have been admitted to the trial. Nevertheless, investigators in all three countries admitted at least some patients citing immediate IUD insertion as their reason for selecting a surgical procedure.

In Cuba, investigators withheld the medical abortion option on certain days, and also enrolled surgical patients even after filling the quota for medical abortions. In India, investigators followed the protocol until the cohort of medical patients

was filled and then stopped the study, resulting in the highest ratio of medical to surgical patients in the three countries.

The final sample included 799 medical clients (299 in China, 250 in Cuba and 250 in India) and 574 surgical clients (268 in China, 249 in Cuba and 57 in India). All women who were randomly assigned to their method of abortion were omitted from the analysis of acceptability.

Patients who chose or were assigned to medical abortion received 600 mg of mifepristone during their first visit and remained under observation at the clinic for half an hour afterwards. At their second visit, 48 hours later, women received 400 mcg of misoprostol and stayed in the clinic for four hours. Fourteen days later, the women returned for a follow-up visit. Women were advised to return to the clinic at any time if they experienced problems. If a woman had not had her abortion by the time of her follow-up visit, she received a surgical abortion.

Women who chose or were randomized to surgical abortion had the procedure (dilatation and sharp curettage) on their first visit; light general anesthesia was used in Cuba and India, and various regimens of local anesthetic were used in China (although some patients received no anesthesia). Fourteen days after the surgical abortion, patients returned to the clinic for follow-up.

Adherence to the protocol was excellent.\* In addition, women were able to adhere to the follow-up schedule extremely well in two of the three countries—94% of the women in China and 94% of those in India reported within three days of their scheduled exit interview. One Chinese woman and no Indian women were lost to follow-up. In Cuba, however, 22% of the women were more than three days late for their exit interview, although only one was ultimately lost to follow-up. The difference appears attributable in part to transportation difficulties caused by severe gasoline shortages during the study period.

All clinics collected data from women through use of a standardized series of forms, which covered a variety of medical and experiential information. In addition, women filled out daily symptom calendars during the weeks of the study. Providers were asked to assess the advantages and limitations of each method and to select the method they preferred to provide, the method they thought patients preferred and the method they would recommend. Data entry and analysis were performed at the Population Council using standard statistical software. Com-

parisons designated as statistically significant have p-values of  $\leq .05$ .

## Results

### Method Selection

At the time the participating women chose their method, they responded to an open-ended question that asked for up to three reasons for their selection. Women in India cited more reasons than women in China or Cuba. At all sites, women frequently said they chose medical abortion to avoid surgery or anesthesia. In China, where surgical abortions are performed with minimal anesthesia, 84% of those who selected the medical method said they did so to avoid pain. In Cuba and India, surgical abortions are often performed under general anesthesia, an undesirable feature according to many women who opted for the medical method. Of the Cuban women who chose medical abortion, 69% reasoned that it was safer. Many Indian women who chose the medical method said it was more compatible than surgical abortion with their other tasks and duties (52%).

Large proportions of women choosing surgical abortion said they did so because it is faster and simpler than medical abortion (China 55%, Cuba 95%, India 38%). Smaller proportions said they chose it because it was effective (China 15%, India 26%). As with the medical method, many women in India chose surgery for its compatibility with their other obligations (65%).

Eighteen percent of women choosing surgery in India cited "fewer visits" as a reason for their choice when responding to the open-ended question, but 66% responded "yes" when asked directly if coming in for an extra visit for a medical abortion was a problem. In China, no women spontaneously cited the higher number of visits entailed in the medical method as a reason for choosing surgery, but 63% of women who chose surgery said the extra visit posed a problem when they were asked directly. In Cuba, on the other hand, only 3% of the surgical patients said that an extra visit would pose a problem. Very few women selecting medical abortion considered an extra visit problematic (China 4%, Cuba 3%, India 5%).

### Timing and Place of Medical Abortion

Medical abortion could occur at any time between mifepristone administration and the day of the exit interview. A small percentage of patients at each site completed their abortion before returning for the prostaglandin (China 4%, Cuba 5% and India 2%).

Most medical abortions occurred on the day the prostaglandin was administered.

\*Four women did not complete the protocol. All are included in the analysis. One woman had already completed her abortion and refused to take the prostaglandin despite a belief on the part of clinic staff that her pregnancy was ongoing. She had indeed had a successful medical abortion, as verified at her exit visit two weeks later. Another woman changed her mind before taking the prostaglandin and requested a surgical abortion. The other two women did not return to the clinic in time to receive prostaglandin. Both received surgical abortions.

As each patient left the clinic after receiving the prostaglandin, clinicians assessed her abortion as certain, probable, uncertain or not yet complete. Ratings varied considerably: The clinicians charted 83% of patients in China, 36% of those in Cuba and 63% of those in India as having certainly or probably had an abortion at this point. However, investigators in China observed women longer than did investigators at the other sites: Although the protocol stated that women should remain in the clinic for four hours after receiving the prostaglandin, 70% stayed longer than four hours in China, compared with 32% in Cuba and 41% in India. The mean stay was more than 30 minutes longer in China than in the other two countries, and the median stay was 40 minutes longer.

Analysis of the participants' diaries showed that 92% of the Chinese women, 80% of the Cuban women and 89% of the Indian women for whom the method succeeded had aborted by the end of the day on which they received the misoprostol. Abortions occurred with decreasing frequency after that point, although at least one abortion was recorded on almost every day through the day of the exit interview. By the day scheduled for their exit interview, several women still had not marked abortions in their diaries—4% in China, 8% in Cuba and 6% in India. Some of these women had, in fact, completed their abortion. The rest received a surgical abortion. Most women said they were aware of the abortion when it occurred (China 79%, Cuba 64%, India 90%), but a few said they were unsure if they knew the moment of the abortion (China 6%, Cuba 18%, India 2%). The rest reported that they did not recognize the abortion's occurrence.

At least 90% of women could identify where they were when the abortion occurred. Most women said their abortion had occurred in the clinic (China 79%, Cuba 46%, India 59%), but many said theirs had occurred in their home (China 11%, Cuba 43%, India 33%). Nine women had abortions on the way to or from the clinic (China 0%, Cuba 2%, India 2%). The high proportion of abortions occurring in the clinic in China is probably linked to the longer average observation period at that site. Similarly, as the majority of women in Cuba did not stay beyond the four-hour observation period scheduled after administration of the prostaglandin, it is not surprising that a substantial proportion aborted after they left the clinic.

Very few women considered the timing or place of the abortion a problem (1% or fewer in each country). Two women who

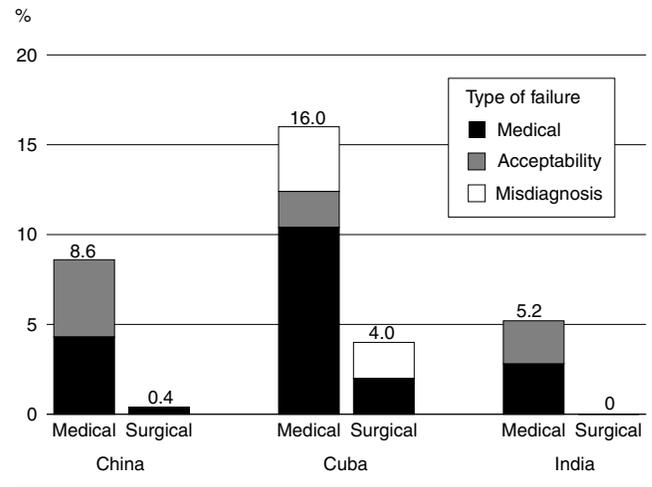
reported a problem (one in Cuba and one in India) had their abortion on the way to or from the clinic; another Indian woman who reported a problem partially aborted at home but later required surgical intervention to complete the abortion. All of the patients in China who reported a problem with the time or place of the abortion had their abortion in the clinic. Nine women (four in Cuba, five in India) had their abortion on the way to or from the clinic, but only two considered it a problem.

### Failure Rates

The outcomes for all medical abortion clients who underwent a surgical procedure for any reason and for all surgical patients who had more than one surgical procedure were considered treatment failures. The total failure rate was higher for medical than for surgical abortion patients in each country (Figure 1). As the figure shows, medical and surgical abortion failure rates varied considerably across countries. Moreover, countries that had high failure rates for medical abortion also had high failure rates for surgical abortion: Failure rates for both medical and surgical abortion were highest in Cuba (medical 16%, surgical 4%) and lowest in India (medical 5%, surgical 0%). The variability across sites probably reflects differences in provider training and gestational age in the three countries, as well as differences in the propensity of individual providers to intervene.<sup>9</sup> Further analyses of the total failure rates for medical and surgical abortion, including differences by gestational age, have been reported elsewhere.<sup>10</sup>

The types of failure that make up the total failure rate for medical abortion differ slightly from those for surgical abortion.<sup>11</sup> The numerator of a total failure rate for medical abortion has three components: acceptability failures, medical failures and erroneous diagnoses. Acceptability failures include surgical interventions necessitated by failure to take the complete medical treatment, a patient preference for surgical intervention prior to the end of the study period or a provider preference (not based on clear medical indication) to intervene before the end of the study period. Medical

**Figure 1. Failure rates of medical and surgical abortion, by country, according to type of failure**



failure results from an adverse event requiring a medically indicated surgical intervention, or an abortion that is not complete by the end of the designated study observation period, in this case 17 days. The third category, erroneous diagnoses of incomplete abortion or ongoing pregnancy, results in unnecessary surgical intervention, as verified by the pathology report following a surgical procedure performed to complete an abortion. The numerator of the total failure rate for surgical abortion has only two components—medical failures and erroneous diagnoses.

•*Medical abortion.* In each country, at least half of all failures of medical abortion were medical failures. The proportion of medical abortions classified as medical failures was 4.3% in China, 10.4% in Cuba and 2.8% in India. Acceptability failures accounted for the remaining failures in China and India (4.3% and 2.4% of all medical abortions, respectively), but for fewer than half of the remaining failures in Cuba (2.0% of all medical abortions), where misdiagnosis was also a factor (3.6%). Cuban physicians appeared to have a harder time validating a complete medical abortion and thus tended to intervene more frequently.

•*Surgical abortion.* The rate of medical failure for surgical abortion was very low in all three countries—0.0% in India, 0.4% in China and 2.0% in Cuba. Misdiagnosis was a factor only in Cuba (2.0% of all surgical abortions), where it accounted for half of all failures.

### Side Effects

Specific symptoms and side effects, including nausea, vomiting, cramping, pain, diarrhea and bleeding, were far more fre-

**Table 1. Percentage of women who cited characteristics of medical and surgical abortion as the method's best or worst feature, by country and method, 1991–1993**

Characteristic	China		Cuba		India	
	Medical (N=299)	Surgical (N=268)	Medical (N=250)	Surgical (N=249)	Medical (N=250)	Surgical (N=57)
<b>Best feature</b>						
Less pain	82.9	16.0	13.2	44.2	38.0	15.8
Greater compatibility with lifestyle, duties	10.0	3.4	†	†	52.4	21.1
No surgery	4.3	na	44.8	na	40.4	na
Safety	5.0	†	32.0	†	4.4	†
Ease, simplicity, speed	†	58.2	9.6	33.3	29.2	49.1
Less bleeding	†	6.7	†	8.0	†	12.3
Effectiveness	†	7.1	4.4	†	†	36.8
Easier emotionally	4.7	†	†	†	3.2	3.5
More information	†	†	†	†	†	10.5
Concurrent IUD insertion	na	8.6	na	3.2	na	10.5
No general anesthesia	†	na	28.0	na	14.8	na
Unlike an abortion	†	na	11.6	na	4.4	na
Fewer side effects	†	†	4.8	47.8	7.6	3.5
Generally pleased	†	†	6.4	6.8	†	†
Fewer visits	†	†	†	†	na	19.3
Clean facilities	†	†	†	4.4	†	3.5
Privacy	†	†	†	†	14.8	3.5
None	6.0	9.7	7.6	5.6	†	†
<b>Worst feature</b>						
Pain (feared or actual)	3.3	36.6	28.8	17.7	†	†
Bleeding (feared or actual)	34.7	5.2	42.0	10.0	14.0	5.3
Nausea/vomiting	8.7	†	†	†	†	†
Fear of failure	8.0	†	12.8	†	†	†
Takes too long	3.7	†	3.6	†	†	†
Anesthesia	na	†	na	18.1	na	†
<b>Other side effects (feared or actual)</b>						
Anxiety, fear, waiting	†	†	3.6	†	†	†
Dizziness, faintness	†	†	†	†	†	3.5
Too many visits	†	†	†	†	3.6	†
Feet-in-stirrups position	†	†	†	†	†	3.5
None	36.5	51.1	31.2	48.2	75.2	78.9

†Cited by fewer than 3% of women. Notes: Women could cite up to three reasons; na=not applicable.

quent among the medical abortion patients than among the surgical abortion patients. The general assessments of well-being given by the two groups at exit interviews, however, were not significantly different at any site. Bleeding was a potentially serious side effect more frequently reported by medical than by surgical abortion patients. Medical abortion patients reported more blood loss than did surgical patients; however, fewer than 5% had bleeding resulting in clinically significant drops in hemoglobin (more than 2 g/dl), and fewer than 0.5% needed a transfusion. Still, the bleeding was certainly frightening or at least unpleasant to some women.

**Acceptability to Patients**

The acceptability of medical treatments can depend heavily on patients' expectations. Women in this study received careful explanations of both medical and surgical abortion before they chose their method. Virtually all of the patients at each site later reported that the method they chose had been properly explained. Nevertheless, some women at each site

said the experience did not match their expectations. This mismatch occurred more often among medical patients than among surgical patients, and the difference was significant in Cuba and India (Cuba, 30% medical vs. 12% surgical; India, 34% medical vs. 9% surgical). Divergence from expectations was both positive and negative. In China, surgical abortion patients were significantly more likely than medical patients to find the experience more positive than they had expected. However, 25% of the medical abortion patients in China (but none of the surgical patients) who stated that the experience had been different from expectations did not elaborate on whether the difference was positive or negative.

Despite standardized counseling across sites, numerous factors—including nuances in communication, preferences of the providers or patients, the ways in which patients received information on such side effects as bleeding and pain, or the background of experiences against which they interpreted the information—could be expected to influence patient reactions. It is not surprising, then, that expectation and experience diverged in

different ways and to different degrees from site to site.

In China, the most common reason given for divergence from expectations for the medical regimen was the failure of the method (22% of those reporting a divergence). For the surgical procedure, the most common reason cited for the difference between expectations and experience was that pain was either less or more intense than expected (47% less and 24% more, among patients reporting a divergence). In Cuba too, method failure was the most common reason for divergence from expectations among the medical patients (47% of those reporting divergence), and "more complications [than expected]" was the single largest reason among surgical patients (38% of those reporting a divergence). However, 28% of Cuban surgical patients said the abortion had been "better than expected."

India was the one site in which the overwhelming majority of medical abortion patients (72% of those reporting a divergence) commented that the experience had been better than they expected. By far the most common reason given was that the medical abortion had been "easier" or "smoother" than expected (49% of those reporting a divergence).

Open-ended questions were used at the exit interview to identify the best and worst features of women's abortion experience (Table 1). For the medical regimen, the best features mentioned most frequently included avoidance of surgery, avoidance of general anesthesia, less pain, safety, ease and compatibility with everyday responsibilities. Freedom from pain was especially important in China (mentioned by 83% of patients), where relief of pain during surgical procedures is apparently minimal. Avoidance of surgery (40–45%) and avoidance of anesthesia (15–28%) were predominant in Cuba and India, where general anesthesia is used for surgery. Bleeding was the factor most frequently identified as the worst feature of the medical method at all sites (14–42%).

Women who had a surgical abortion appreciated the ease and simplicity of the procedure (33–58%). Cuban women singled out the minimal pain (44%) and lack of side effects (48%) as the surgical method's best features, while Indian women were most likely to cite its effectiveness (37%). However, 37% of women who had chosen surgical abortion in China and 18% of those in Cuba considered pain one of the worst features of the method, while 10% of those in Cuba and 5% of those in India and China cited bleeding.

Women rated their overall abortion experience as “highly satisfactory,” “satisfactory” or “not satisfactory” (Table 2). The overwhelming majority of all women at each site were either satisfied or highly satisfied with their experience, regardless of method (84–95% of medical patients and 94–100% of surgical patients); the level of satisfaction with the two methods varied significantly only in Cuba—94% of surgical patients vs. 84% of medical patients ( $p \leq .001$ ).

At every site, however, both the proportion of women who said they were highly satisfied and the proportion who said they were not satisfied were higher among medical abortion patients than among surgical abortion patients. Many of the unsatisfied medical abortion clients had experienced failures (China 77%, Cuba 78%, India 67%).

Women who had previously had an induced abortion were asked to rate their current experience as “more satisfactory,” “as satisfactory” or “not as satisfactory”

**Table 2. Percentage distribution of abortion patients, by degree of satisfaction with abortion experience, according to country and method**

Country and degree of satisfaction	Medical	Surgical
<b>CURRENT ABORTION</b>		
<b>China***</b>	(N=299)	(N=268)
Highly satisfied	42.8	23.1
Satisfied	51.5	72.8
Not satisfied†	5.7	4.1
<b>Cuba***</b>	(N=249)	(N=246)
Highly satisfied	59.0	39.4
Satisfied	24.5	54.1
Not satisfied†	16.5	6.5
<b>India**</b>	(N=248)	(N=57)
Highly satisfied	68.5	54.4
Satisfied	26.7	45.6
Not satisfied†	4.8	0.0
<b>COMPARISON TO PREVIOUS ABORTION</b>		
<b>China</b>	(N=214)	(N=156)
More satisfied	62.6	53.2
As satisfied	31.3	41.0
Not as satisfied	6.1	5.8
<b>Cuba***</b>	(N=144)	(N=148)
More satisfied	57.6	43.2
As satisfied	18.1	47.3
Not as satisfied	24.3	9.5
<b>India*</b>	(N=55)	(N=14)
More satisfied	70.9	35.7
As satisfied	20.0	57.2
Not as satisfied†	9.1	7.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

\*The difference in the distribution of responses between medical patients and surgical patients is significant at  $p \leq .05$ , according to chi-square tests; \*\*the difference between patient groups is significant at  $p \leq .01$ ; \*\*\*the difference between patient groups is significant at  $p \leq .001$ . †Although the medical and surgical abortion groups differ significantly in the distribution of responses across all three categories, the two groups do not differ significantly in the proportion of women who were not (as) satisfied. Note: The proportion of women who were satisfied did not change by more than two percentage points when women assigned to their method were excluded from the analysis.

in comparison with their earlier abortion (Table 2). At all sites, higher percentages of women in the medical group than in the surgical group rated the current abortion as more satisfactory than the previous one; this difference was statistically significant in Cuba and India. On the other hand, the proportion of Cuban women who stated that their current abortion had not been as satisfactory as their prior abortion was also significantly higher among medical patients than among surgical patients (24% vs. 10%).

Finally, when women were asked whether they would choose the same method again if they needed another abortion, the great majority said that they would, regardless of which method they had used. However, medical patients were more likely than surgical abortion patients to say they would select the same method; there was a significant difference in China (90% vs. 77%;  $p \leq .001$ ) and in India (96% vs. 89%;  $p \leq .05$ ), but not in Cuba (84% vs. 84%). Surgical abortion patients in China were the group least likely to say they would choose their method again, while medical abortion patients in India were the most likely to say they would do so.

#### Acceptability to Providers

Access to a new medical treatment depends largely on whether physicians are willing to provide the treatment and on how well the treatment can be adapted to various settings. Thirty-five providers—20 doctors, nine nurses and six medical social workers—completed an open-ended questionnaire on these issues. Nineteen clinicians participated in China, 12 in India and four in Cuba. This distribution means that the views of the Chinese clinicians tend to dominate in the analysis.

When providers were asked the advantages of the surgical method over the medical method, 25 remarked that it was quick, 11 that it caused less bleeding and eight that it produced a higher rate of complete abortion. Providers also noted that it inspired confidence in women. The disadvantages of surgical abortion mentioned by clinicians included pain, complications and women’s fear of these problems, women’s fear of anesthesia, nervousness and stress. Twenty-one providers believed that surgery has other disadvantages, including the uterine manipulation involved and the time lost from work (Table 3).

As advantages of medical abortion over surgical abortion, providers cited safety, less pain and avoidance of surgery. They also noted that women seemed less afraid and were able to play a more active role

**Table 3. Number of providers who cited features of medical or surgical abortion as advantages or disadvantages (N=35)**

Features	Medical	Surgical
<b>Advantage</b>		
Quick	0	25
Less bleeding	0	11
Effective	0	8
Less pain	16	2
No surgery	13	na
Other	39	7
None	1	0
<b>Disadvantages</b>		
Complications	0	13
Pain	0	13
Anesthesia	0	8
Bleeding	16	0
Failure	9	0
Uncertainty for women	5	0
Other	25	21
None	4	0

Note: na=not applicable.

in the process because they were conscious. Nearly all providers felt that the large majority of women had no difficulty complying with the medical protocol.

However, 16 providers disliked the prolonged bleeding associated with the medical method, nine cited the higher failure rate as a shortcoming and five said that women were uncertain that the method would work. In addition, five providers found the lengthy screening checklist required for the medical arm of the study daunting, and a few others disliked the extra clinic visits required.

Several valued characteristics were ascribed to both methods, despite the dissimilarities between the two technologies. For example, some providers found the surgical method more convenient, while others said medical abortion was more convenient. Some considered surgery less painful, while others thought the medical method was less painful.

Fourteen providers preferred to offer medical abortion, five preferred surgical abortion and nine had no preference. Those preferring to offer medical abortion considered it less painful, less risky and more private. Providers favoring surgical abortion saw it as quick and safe. Twenty-five providers believed that women preferred medical abortion, while the other three said that women had no preference.

Providers’ responses were similar across sites, showing no remarkable differences of opinion by provider type or country. Nonetheless, these data may obscure nuances of individual opinion for two reasons. Providers recorded ideas in a second (or third) language, and providers collaborated in completing the questionnaires. In one site where only one person spoke English,

for example, translated responses from all providers were almost identical.

## Discussion

The results of this study suggest that a medical abortion regimen using mifepristone and misoprostol would meet the need for an effective nonsurgical technology in developing countries. Many of the participating women were willing to accept the side effects, bleeding and relatively high risk of failure associated with the method to avoid a surgical procedure. In addition, providers appear comfortable with the medical regimen; the great majority either preferred it to surgical abortion or had no preference.

Medical abortion represents a revolution in gynecologic medicine. Many aspects of service delivery remain to be studied, discussed and refined. For example, the results of this study suggest that advance information will be essential to prepare women for side effects of medical abortion, particularly the bleeding and the waiting involved. Women must understand how to detect any complications as soon as possible. Nevertheless, our results indicate that this technology can currently be delivered safely and effectively to women in at least some developing countries.

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## Resumen

En un estudio comparativo sobre la aceptabilidad del aborto con tratamiento médico para mujeres de los países en desarrollo, se le permitió a pacientes en clínicas localizadas en la China, Cuba e India, elegir entre un procedimiento quirúrgico y un tratamiento médico a base de mifepristone y misoprostol. Las razones más comúnmente esgrimidas por las mujeres por haber seleccionado un aborto con tratamiento médico fue su deseo de evitar la cirugía y la anestesia general; las razones mencionadas más frecuentemente por las que preferían un aborto quirúrgico fue la rapidez, la simplicidad y la eficacia del procedimiento. La tasa de falla para abortos con tratamiento médico variaron del 5% en la India al 16% en Cuba, en tanto que las tasa de falla para los abortos quirúrgicos variaron entre el 0% en la India al 4% en Cuba. Si bien las mujeres que escogieron el aborto con tratamiento médico se quejaron más frecuentemente de los efectos secundarios, la mayoría de las mujeres en todos los lugares se mostraron satisfechas o muy satisfechas con su experiencia, sin importar cual fuere el método (tratamiento médico, del 84-95%, y quirúrgico, del 94-100%). En cada país bajo estudio, las que se sometieron al aborto con tratamiento médico eran significativamente más probables que las que se sometieron a la cirugía a indicar que estaban muy satisfechamente (China, 43% contra 23%; Cuba 59% contra 39%); e India, 69% contra 54%), asimismo, eran más probables a indicar su insatisfacción (China, 6% contra 4%; Cuba, 17% contra 7%; e India, 5% contra 0%). En China y la India, las mujeres que se sometieron al aborto con tratamiento médico eran significativamente más propensas que aquellas que se sometieron a la cirugía a indicar que si tuvieran que repetirlo, usarían el mismo método.

## Résumé

Dans le cadre d'une étude comparative relative à l'acceptabilité de l'avortement médical et de l'avortement chirurgicale parmi les femmes des pays en développement, les patientes de cliniques établies en Chine, à Cuba et en Inde ont été invitées à choisir entre une procédure chirurgicale et un régime médical à base de mifepristone et de misoprostol. Les raisons le plus souvent invoquées par les femmes en faveur de l'option médicale ont été le désir d'éviter l'intervention chirurgicale et l'anesthésie générale; celles mentionnées le plus fréquemment en faveur de l'avortement chirurgical ont été la rapidité, la simplicité et l'efficacité de la procédure. Le taux d'échec de l'avortement médical a été mesuré entre 5% en Inde et 16% à Cuba, par rapport à une fourchette mesurée entre 0% en Inde et 4% à Cuba pour la procédure chirurgicale. En dépit

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*d'effets secondaires signalés plus fréquemment par les femmes qui avaient choisi l'avortement médical, la majorité des participantes, dans tous les sites soumis à l'étude, se sont déclarées satisfaites ou très satisfaites de leur expérience, indépendamment de la méthode choisie (84%*

*à 95% pour la méthode médicale; 94% à 100% pour la méthode chirurgicale). Partout aussi, les femmes qui avaient choisi l'avortement médical étaient beaucoup plus susceptibles que les autres de se déclarer très satisfaites (43% par rapport à 23%, respectivement, en Chine; 59% par rapport à 39% à Cuba; et 69% par rapport à 54% en Inde). Les femmes étaient également plus susceptibles de se déclarer in-*

*satisfaites (6% par rapport à 4% en Chine; 17% par rapport à 7% à Cuba, et 5% par rapport à 0% en Inde). En Chine et en Inde, les femmes qui avaient subi un avortement médical étaient nettement plus susceptibles que celles qui avaient choisi la procédure chirurgicale de se déclarer, le cas échéant, prêtes à choisir la même méthode.*