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Medical Method for Termination of Pregnancy and Outcome

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INTRODUCTION

Abortion is a sensitive and contentious issue with religious, moral, cultural and political dimensions. It has been practiced since antiquity with or without legal and worldwide nearly one in 10 pregnancies end in unsafe abortions. These deaths represent about 13% of all pregnancy related death.(1)

In India, abortion was legalized under the medical termination of pregnancy act. This act was introduced in1971. It came in to force in April 1972. This act has helped to reduce the morbidity and mortality associated with unwanted pregnancy by making it legal and safe. It empowers social sanctions. WHO (2004) states 46 million pregnancies are terminated voluntarily each year, 27 million safely and 19 millions falling into category of unsafe abortions. It empowers the women to take an early decision about termination and gives the choice of legal and safe medical termination method.

Until the second half of the twentieth century dilatation and curettage was most common and virtually only method used for safe abortions. This procedure may be associated with certain complications like haemorrhage, perforation of the uterus, infections etc. To avoid these surgical complications medications has been tried to induce abortions. In the past drugs like heavy dose of oxytocin, extra-large dose of estrogen, prostaglandins etc. were used.

Russel laboratory of France introduced the RU486 for medical termination of pregnancy. It under-went trials since1980 and was made available worldwide in 2002. It was noticed that when RU-486 was combined with prostaglandins, synergetic effects are seen. Mifepristone causes detachment of the pregnancy and Misoprostol causes expulsion, ensuring better results. The Ministry of Health and Family Welfare Government of India, has recommended its use in India till 7 weeks (49 days) of pregnancy.

Termination of pregnancy with RU-486 is considered extremely safe if done under supervi-sion and appropriate counselling. Technological advances like highly sensitive urinary pregnancy tests and a transvaginal USG, support for early diagnosis and follow up of medical abortion.

This study is to find out the efficacy of Mifepristone and Misoprostol for medical termination of pregnancy in a licensed, registered tertiary centre in a small group of women(n=100).

MATERIAL AND METHODS

This prospective study was carried out at Jaslok hospital, Mumbai over a period of one year.100

cases seeking MTP, in the reproductive age group with a history of less than or equal to 7 weeks' gestation with a desire to terminate because of physical/ mental/social reasons. A gravid woman of <7 weeks of gestation irrespective of parity were included. Ectopic/Molar pregnancy, Uterine anomalies, Threatened or spontaneous abortion, Multiple pregnancies were excluded.

Approval from scientific and ethical committee was taken before starting the study. Clearance from the ethics committee of the hospital was obtained. Written informed consent was obtained from all the patients after explaining the protocol.

PREPROCEDURE

This is a prospective study with the follow up of cases undergoing medical termination of pregnancy. All patients coming to Jaslok hospital over a period of one year and fitting in to inclusion criteria were included in the study. Total number of women was 100.

1. Detailed history of patients has taken.
2. General, physical and gynecological examination was done
3. Ultrasonography was done to confirm the gestational age
4. Basic investigation includes hemoglobin, blood group and Rh typing was done.
5. Informed and written consent was taken.
6. Tablet Mifepristone 200mg was given on day 1.
7. Tablet misoprost 400 mcg was given orally on day 3 (48 hours after mifepristone)
8. Tablet misoprost 400 mcg was given orally on day 4.
9. Information was given of possible side effects as nausea, vomiting, cramps, diarrhea etc., symptomatic treatment was also prescribed and to keep someone with them on days of Misoprostol.
10. Injection antiD given, if mother is Rh negative on day 1.
11. Follow up after 2 weeks to ask about bleeding per vagina persisting or not, Time interval between start of vaginal bleeding and ingestion of drug, duration of bleeding, gastrointestinal symptoms, rise of temperature, pain in abdomen, ultrasonography to confirm complete abortion and hemoglobin level was checked again.
12. The women who had evidence of any blood clots, thick endometrium, retained products of conception in sonography but not having heavy bleeding were allowed to wait for one week. They were asked to do a repeat scan to see completion. If repeat scan had retained products of conception, then additional dose of misoprost (400 mcg) was given and follow up after a week to check for completion by ultrasonography.

    Other women who had retained products of conception with vascularity and having heavy bleeding, directly suction evacuation was performed.
13. Tablet methergin was given for heavy or prolonged bleeding for three days.

Qualitative data is presented with the help of Frequency and Percentage table, association among study group is assessed with the help of Chi-Square test with continuity correction for all Two by two tables and with or without continuity correction in rest. Quantitative data is presented with the help of using Mean, Std Dev, Median and IQR (inter quartile range), comparison between study groups is done with the help of Mann-Whitney test as per results of Normality test.

RESULTS

We conducted a prospective study at Jaslok hospital &Research centre including 100 women seeking medical termination of pregnancy with a history of less than or equal to 7 weeks of gestation after approval of ethical committee.

Clinical characteristics of the patients are shown in Table 1.Median age of the patient was 28 years with a range of20-40. Most of the patients were primigravida with median of 3.Duration of bleeding was maximum for 10 days with mean of

5 days. Side effects are in form of vomiting in maximum patients followed by nausea and abdominal cramps. In our study onset, of bleeding after mifepristone in 2%, onset of bleeding after Misoprostol in <2 hrs in 44%,2-4 hrs in41%, 5or more hrs in 13%.

As table-2 showing 34% were primigavida, 23% cesearean, 16% normal delivery, 14% normal delivery +abortion, 5% cesearean+abortion, 4% abortion,3% normal+cesearean and 1% were normal+ceserean+abortion. AS Table -3 showing gestational age in weeks included maximum 50% in 5-6 weeks, 32% in 4-5 weeks,16% in 6-7 weeks and 2% in <4 weeks. Table -5 showing loss of Hb in terms of gram% <1% in 58, 1gm% in 27, 1to 2 gm% in 14 and >2gm% in only one patient.that means loss of blood not so significant.

On follow up of cases after2 weeks 14% patients showed Retained products of conception in sonography. Additional treatment in medical form needed in 11 % of the patients. Only 6% patients required dilatation and curettage.

DISCUSSION

Medical abortion offers great potential for improving abortion access and safety, as it requires less extensive infrastructure than surgical abortion. Also, there is no need for anaesthesia and operation theatre facilities and maintains patient's need for privacy. The disadvantages would be that the women require at least three visits to the hospital, unpredictable outcome in few patients, longer duration of bleeding, and potential risk of fetal malformation if it fails to cause abortion. The factors that may prevent the women from accepting the medical method of termination of pregnancy is the abdominal cramps and heavy bleeding, duration of bleeding(Average 7–10 days),and the need to follow-up after 2 weeks for clinical examination and sonography.

In the study group 34% having history of previous caesarean delivery as compare to 8% in Singla et al. study [(2)] and 11.2% in Sahu et al. study. [(3)] In study group, gestational age in weeks included 2% in <4 weeks,32% in 4-5 weeks, 50% in 5-6 weeks and 16% in 6-7 weeks. In Shrivasttav and colleagues study [(4)] 40% women were having 4 weeks, 42% having 5 weeks,14% having 6 weeks,4% having 7 weeks of gestation. In Neeru et al. Study [(5)] 9.7% were having 5 weeks,44% having 5-6 weeks, 24.4% having 6-7 weeks and 22% having 7-8 weeks of gestation.

In study group Haemoglobin loss of <1 gm% in 58%, 1 gm% in 27%,1-2 gm% in 14% and >2 gm% in1%. In Singla et al. Study[(2)] Haemoglobin level declined by 0.42± 0.04gm%. None of the women had clinically significant fall in haemoglobin (≥2 gm %) so as to affect their general health. None of them required blood transfusion.2% women were given anti-D.

In study group 14% patients were having retained products of conception. Out of that 50% women had history of previous cesarean delivery. It could be due to the products adherent to scar. In our study1% women had scar pregnancy. Although we could not find any study to compare this data. Out of total 14%, 3 women had undergone directly for surgical evacuation due to vascularity in sonography and 11 had given additional dose of misoprost. Out of that 11, 8 women had complete evacuation. Over all total 6% women had underwent surgical evacuation. In Von et al. Study [(6)] out of 2962women 2755 completed the study without vacuum aspiration or additional Misoprostol, 173 had surgery, 25 were given additional Misoprostol and nine had undetermined failure and then were lost to follow up. In Neeru Goel et al. [(5)] study successful medical abortion took place in 77 (96.25%) patients out of which three patients (3.75%) required a repeat dose of 400 mcg Misoprostol after 24 hours. Seventy-two (90%) women had a complete abortion without any surgical intervention within 5 hours of taking Misoprostol. Three (3.75%) women only required suction evacuation.

The conventional timing of Misoprostol administration after Mifepristone for medical abortion is 2 days, but more flexible intervals which implies a more convenient regimen, was tried. Neeru Goel et al. Study [(5)] Misoprostol was

given 24 hours after Mifepristone which consequently decreased the duration of the total abortion process. Schaff et al. [7] had documented 98% complete abortion rate with Misoprostol (vaginally) after 1 day, 98% after 2 days and 96% after 3 days of Mifepristone. This suggests that Misoprostol need not to be administered strictly after 48 hours.

Our study on medical termination of pregnancy by mifepristone followed by misoprost after 48 hrs and 72 hrs is safe and effective. Failure rate was only 6%.

Table 1: Clinical characteristics of patients

Age in Years	28+-10
Parity	3+-1
Duration of symptoms in Days	5+-5
Onset of Bleeding after Mifepristone	2
Onset of Bleeding after Misoprost in <2 hours	44

Table 2: Distribution among the cases of Parity

Parity	No.	Percentage
Normal delivery	16	16.0%
Normal delivery + Abortion	14	14.0%
Normal delivery + Cesearean	3	3.0%
Normal delivery + Cesearean + Abortion	1	1.0%
Cesearean	23	23.0%
Cesearean + Abortion	5	5.0%
Abortion	4	4.0%
Primigravida	34	34.0%
Total	100	100.0%

Table 3: Distribution among the cases of Gestational Age (in weeks)

Gestational Age (in weeks)	No.	Percentage
< 4	2	2
4 to 5	32	32
5 to 6	50	50
6 to 7	16	16
Total	100	100

Table: 4 Haemoglobin Loss in Gm% among the cases –

Haemoglobin Loss in Gm%	No	Percentage
<1	58	58%
1	27	27%
1 to2	14	14%
>2	1	1%

Table 5: Results of follow up among cases

Follow up Sonography - RPOC	14
Needed additional medical treatment	11
Needed Surgical treatment	6

CONCLUSION

From our study, we concluded that medical termination of pregnancy is safe, effective and noninvasive. It is an outpatient procedure. It does not require stay in the hospital and well accepted. Since the cost of anesthesia and surgical evacuation was not there it was more economical and safer than that of surgical evacuation. With this procedure morbidity and mortality due to illegal abortions can be markedly reduced. The failure rate is only 6%.

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