DESCRIPTIVE STUDY ANALYZING MEDICAL AND SURGICAL METHODS OF TERMINATING FIRST TRIMESTER PREGNANCY.

Dr. Bhaktabatsal Raut[1], Dr. Shreedhar Acharya[1]

ABSTRACT

INTRODUCTION:

This study was conducted to analyze the medical and surgical methods of first trimester of pregnancy.

MATERIAL AND METHODS:

A hospital based retrospective study done at Lumbini Zonal Hospital, Butwal over the period of one year, where all the women who had first trimester abortion services were analyzed. Age, parity, education status, failure rates and post abortion contraception were analyzed.

RESULTS:
There were total of 478 women who had abortion services, of which 244 women had medical method of abortion. Among them 4.89% were teenagers and 11.29% were primigravida and 6.9% were uneducated. The failure rate for medical method was 9% and for surgical method was 1.7%. Most women at their post abortion period asked for condoms, followed by DMPA, IUD and OCP as a method of contraception.

CONCLUSION :

Failure rate of medical method was high and acceptance of long acting post abortion contraception was low.

KEY WORDS: Retrospective study, first trimester abortion, post abortion contraception.

1. Department of obstetrics & Gynecology, Lumbini Zonal Hospital, Butwal

For Correspondence;
Dr Bhaktabatsal Raut,MD
Lumbini zonal hospital, Butwal, Nepal.
Mobile no. 9847258316.
Email:drbhakta_raut@yahoo.com

INTRODUCTION:

Before the legalization of abortion in Nepal in 2002, it was estimated that up to half of the maternal mortality was due to unsafe abortion. The maternal mortality rate prior to legalization of abortion was 539 per 100,000 live births, safe abortion services contributed a significant reduction of this rate in the present situation. Medical abortion means, abortion effected by medicine alone using mifepristone and misoprostol whereas surgical method refers to the procedure called mannual vacuum aspiration(MVA).

Increasing access to safe abortion services is the most effective way of preventing the burden of unsafe abortion, which is achieved by increasing safe choices for pregnancy termination. Medical abortion for termination of early abortion is said to safe, effective, and acceptable to women in several countries. it is important to assess women's preferences and the acceptability of medical abortion and manual vacuum aspiration (MVA) in the early first trimester. In parts of the world where termination of pregnancy is performed under unsafe conditions, the medical method of termination has promising effects on maternal morbidity and mortality. In most parts of the western world however, both medical and surgical abortions are performed in safe and efficacious settings associated with low risks of complications. When comparing medical and surgical abortion, focus should therefore not only be on efficacy and complications, but also on acceptability and patient satisfaction. Satisfaction with the medical abortion procedure is generally high[1].

In this study, descriptive analysis of the hospital records of abortion services were made to see the trends of services provided and to draw any recommendations obtained out of this study.

MATERIAL & METHODS:

This is a hospital based retrospective study done at Lumbini zonal Hospital in the department of obstetrics and gynecology. The study was done reviewing the hospital records over the period of 12 months from 2068/1/1-2068/12/30. All pregnant women who had abortion services both in the form of medical as well as surgical methods during the study period were included in the study.

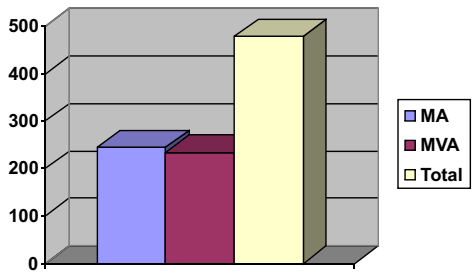
As abortion is legalized only up to 12 wks of gestation, MVA is the method used for terminating the pregnancy up to 12 weeks, but medical method of abortion is practiced only up to 9 weeks of gestation. Women's history of last menstrual period , clinical bimanual examination findings were taken to estimate the approximate gestational age. In case of doubt or difficult examination, ultrasound was used to confirm the gestational age. The pregnant women were counseled about the methods ,possible consequences ,success rates for both of the methods of abortion. They were encouraged to choose the methods up to 9 weeks gestation and above that all of them had surgical method of abortion. The women who had chosen surgical method had MVA and who had chosen medical method were counseled in detail about the drug administration with possible adverse effects. Mifepristone 200mg was administered orally at hospital and misoprostol 800 microgram at home bucally or sublingually 24 hrs later. The follow up visit was mandatory for cases having medical abortion and for surgical method it was only for cases having failure or complications.

The success of any method labeled as completed abortion on follow up visit. Failed medical abortion as well as incompleteness of each method is considered as failure.
"Continuing pregnancy" occurs when the medical abortion regimen fails to terminate the pregnancy. The diagnosis is established when ultrasound reveals a viable pregnancy with embryonic cardiac activity 2 weeks after initiating treatment.
The cases having complications of failure as well as continuation of pregnancy were all treated at the same centre and documented in the initial register as a failure.
Age parity, education status, success rate of completion of abortion and post abortion contraceptives were analyzed in the study.

RESULTS:

There were total of 478 pregnant women who had abortion services during the period of one year at Lumbini zonal Hospital. Among them 244 cases had medical method and rest of 234 had MVA to terminate the pregnancy (Diagram 1)

Diagram 1. Total number of abortions.

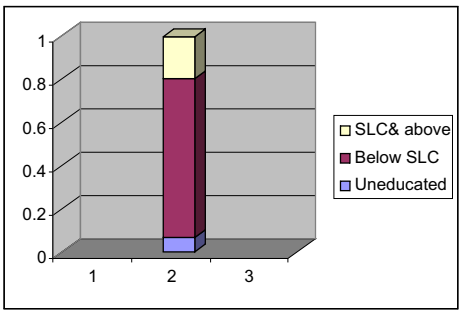


Twenty three(4.81%)cases were teenagers with maximum number of cases were in between the age group of 20-30 yrs. Similarly, when parity was considered,54(11.29%)cases were primigravida and 310(64.85%) cases were between parity 1-2.

Considering the education status of the client who had abortion services ,33(6.9%) women were uneducated, 93(19.45) were educated up to SLC and above, and

352(73.64%) were educated but below level of SLC. (Diagram 2)

Diagram 2. Education status.



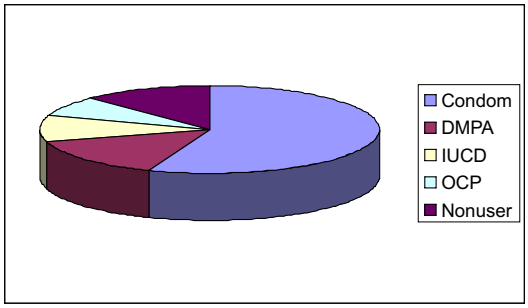
Out of 244 cases who had medical abortion, only 214 cases had their follow up visit as advised. The remaining 30 cases have lost their follow up, might be due to the lack of any complaints. If here had been any complications among these 30 cases ,they would have visited the same centre where all the treatment is free of cost. Among 244 MA cases ,22(9.01%) cases had failure ,of which one case had continuation of pregnancy and rest 21 cases had failure in the form of incomplete abortion. All of them had MVA to make the abortion complete. Among cases who had MVA, 4(1.7%) cases presented again with bleeding and were diagnosed to have incomplete abortion and repeat MVA was done.(Table 1).

Failure rates: Table 1.

Methods	Total cases	Failure
MA	244	22(9.01%)
MVA	234	4(1.7%)

After abortion services, contraceptives were advised. Among total cases 68 (14.22%) of them rejected for any methods of contraception. Among accepters, 262(63.9%) opted for condoms, 67(16.34%) used DMPA,47(11.46%) used IUCD and rest of 34 (8.29%) were happy to take oral contraceptives (Diagram 3)

Diagram 3. Post abortion contraception.



DISCUSSIONS:

Medical abortion with mifepristone followed by home administration of vaginal misoprostol is safe and highly acceptable also to women with gestational length of 50-63 days as compared with shorter gestations [2]. Similar protocol was also followed in the study hospital but women were found use misoprostol bucally or sublingually more comfortably. Efficacy, acceptability and preference for future place of administration of misoprostol, did not differ between women with gestation below 50 days or between 50 and 63 day[3]. Medical abortion requires more clinic visits than surgical abortion, however, and it should be offered only by well-trained clinicians who can provide surgical treatment in the event of a failed abortion or excessive bleeding[4].

Manual vacuum aspiration(MVA) in the first trimester of pregnancy is effective in 98 to 99 percent of women, and most failures occur at early stages of gestation [5]. For this reason, some physicians will not perform vacuum aspiration until at least seven weeks of gestation. An advantage of medical termination is its high rate of efficacy in women with early pregnancies. In addition, medical abortion is safe and acceptable to women, and it does not require anesthesia. Medical abortion requires more clinic visits than surgical abortion, however, and it should be offered only by well-trained clinicians who can provide surgical treatment in the event of a failed abortion or excessive bleeding [6].

Women who choose medical abortion must have access to a specialized center where suction curettage is available, should heavy bleeding occur and blood transfusion be required. In our set up, the facility for both medical and surgical methods exists for 24 hrs , so that complications were managed well on time.

In developed countries, medical abortion offers women an alternative to surgical abortion. In underdeveloped countries, even where abortion is legal, surgical abortion may not be an option because physicians may be unwilling or inadequately trained to perform the procedure. Women receiving medical abortion were more satisfied with their method and more likely to choose the same method again than were subjects undergoing surgical abortion[7].

The Ministry of Health and Population (MoHP), the Nepal Society of OB/Gyns, Ipas, Marie Stopes International and Family Planning Association of Nepal with support of Gynuity Health Projects and the World Health Organization (WHO) among other organizations have worked to increase women's access to safe abortion services, especially through medical abortion expansion, which was piloted from December 2008 to June 2009. The program has been very successful even in rural areas with good clinical training but lacking modern technology like ultrasound.

The overall success rate of medical abortion during the pilot phase was 96 percent and in the six subsequent months it was 98 percent, thus demonstrating that the service can be provided with virtually no technology. Well-trained and experienced providers already provide care by relying on their clinical skills, history and evaluation to assess an array of health conditions.

A meta-analysis of medical abortion trials by Kahn and colleagues reported incomplete abortion rates of 2.9% for mifepristone/misoprostol regimens and 2.4% for methotrexate/misoprostol regimens in women with pregnancies of ≤ 49 days' gestation. For both mifepristone and methotrexate regimens, incomplete abortion rates increased with advancing gestational age. With mifepristone regimens, the use of oral misoprostol resulted in higher rates of incomplete abortion than the use of vaginal misoprostol (6.4% vs. 2.1%, p = .05) [8]. In our study the success rate for medical abortion was 91% and for MVA was 98.3%,which was quite lower in comparison to medical abortion success rate. This was probably due to the clients education status to properly follow the advised instructions. Continuing pregnancy is uncommon in women undergoing medical abortion at ≤ 49 days' gestation. The study by Spitz and colleagues using the FDA-approved medical abortion regimen reported rates of continuing pregnancy of 1% for gestations ≤ 49 days, 4% for gestations between 50 and 56 days, and 9% for gestations between 57 and 63 days [9]. There was only one case of continuation of pregnancy for which medical method was used at 6weeks of gestation. She had MVA at her follow up of 2 weeks.

With the dramatic change of abortion practices in recent years since the introduction of medical abortion, the safety of medically induced abortion is of great public health interest[10]. In the United States, nearly 50% of pregnancies are unintended, and 22% of all pregnancies (excluding miscarriages) end in termination [11].

In our study records ,there were no data rcorded differentiating unintended or intended pregnancy with miscarriage. Dilatation and curettage (D&C) is an outdated surgical technique that should be replaced, whenever possible, by vacuum aspiration or medical (drug-induced) abortion which are better options [12] . In our study, all the clients who had surgical procedure, MVA was the technique strictly followed and medical abortion was also liberally provided as per demand. Failure after a medical procedure is experienced as worse than failure after a surgical procedure, which might be explained by the later diagnosing of failed medical than failed surgical procedures and the fact that a major reason for choosing a medical termination is to avoid a surgical procedure[13].

With proper precautions, almost all contraceptive methods can be effectively used following medical abortion[14].

Women undergoing abortion in an urban clinic have knowledge and high acceptance of IUDs, and sharing of contraceptive experiences is common among women of all demographics. Controlling for demographics and prior knowledge of IUDs, sharing of personal IUD experiences by providers is significantly associated with IUD use[15].

Insertion of an IUD immediately after abortion is both safe and practical. This was true for both induced and reported "spontaneous" abortions, many of which may have been induced under clandestine circumstances. IUD expulsion rates were higher after second-trimester abortions than after earlier abortions, so delaying insertion may be advisable after later abortions[16].

CONCLUSION:

In this study, most of the women accepted condoms, followed by DMPA,IUCD and oral contraceptive pills. We have also counseled the clients and provided any methods of contraception they want after having abortion. The proper planning of post abortion contraception will provide an additional contraceptive service opportunity, thus increasing the currently low National CPR, and reduce repeat unwanted pregnancy, unsafe abortion, with all its potential sequel. We therefore recommend its integration into emergency post-abortion care. The most commonly chosen methods were oral pills (45.3%), DMPA (21.8%) and male condoms (20.7%)[17].

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