

Second Trimester Abortion practices in Eastern Hilly District of Nepal: A Cross-Sectional Study

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ABSTRACT

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Introduction: Second trimester abortion comprise 10-15% of total cases worldwide because of maternal disease, fetal anomalies and delay in obtaining first trimester services during unintended pregnancies. The availability of legal safe abortion services with skilled hands are limited in rural hilly areas of Nepal. Unsafe and delays in seeking abortion services in resources poor countries like Nepal are contributing to maternal mortality and morbidity. This study aims to describe the demographic profile of patients, indications, and methods of second-trimester abortion with possible complications and family planning acceptance in the rural hilly areas of Nepal.

Methods: A retrospective cross-sectional study was conducted at Ilam District Hospital in Province 1 of Nepal. The study sample comprise 75 patients who were admitted for abortion services in one fiscal year period from 16th July 2017 to 15th July 2018. Data for all the patients who received second-trimester abortion services were retrieved from Health Management Information System (HMIS) logbook maintained by the Hospital. Descriptive analysis was performed. Ethical approval for this study was obtained from the Nepal Health Research Council (Ref. No-1921).

Results: Most common age group seeking second-trimester abortion were 20-24 years (26.66%) and majority of women who participated in this study were literate upto secondary level education (58.66%). Most participants belonged to janajati/adibasi caste (73.33%) and were from Ilam districts (72%). Most of the cases were in the early second trimester (62.66%) and were multiparous (60%). Common indications for termination of pregnancy were mental/maternal cause (82.66%) and medical induction were most (69.33%) common method. No major complications were found following abortion. Majority of participants chose short-term contraception (36%) following the termination of pregnancy.

Conclusions: Awareness and availability of legal safe abortion services at local health facilities can reduce delays in seeking abortion services, prevent unsafe abortion practices and reduces maternal morbidity and mortality.

INTRODUCTION

Sexual and reproductive health and rights (SRHR) are fundamental to individuals, adolescents, couples and families. Though SRHR issues had been highlighted extensively since the International

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Conference on Population and Development in 1994, the quality of sexual and reproductive health services remains inadequately addressed in many parts of the world.¹ The situation of SRHR in developing nations like Nepal is at an unacceptable state where unsafe abortion is still being practiced widely. Thus, the United Nations sustainable developmental goals (SDG 3) have mentioned universal access to sexual and reproductive health care services and to reduce maternal mortality.²

Considering the situation, the Government of Nepal granted a new policy for legal access to abortion for the first time in 2002, which became effective from 2003, while the second-trimester abortion services started in 2007. The current policy of abortion permits women to terminate the pregnancy up to 12 weeks gestation by request and up to 28 weeks gestation in the case of rape, incest, and women living with HIV/AIDS. In unexpected circumstances such as if the pregnant woman is in mental or physical life-threatening conditions and if there are fetus anomalies, pregnant women can get legal abortion service at any time by an approved and certified medical practitioner. The national abortion policy also states that if the girl is less than 16 years of age or in a state of mental incompetence, a legal guardian must give consent for abortion. Abortion based on the gender of the unborn baby is prohibited by the government.³

Abortion is one of the common procedures in gynecological departments worldwide. Medical and surgical abortion methods are available for the second trimester abortion and the choice of techniques depend on the surgeon's expertise, gestation age, and patient preference after the women is counselled to be informed about all the available options and their potential complications. The general indications for abortions depend on social reasons, medical reasons, and lethal fetal anomalies. The risk of complications from the medical and surgical procedure is low in countries where the legal safe abortion services are provided by well-trained skilled health professional.^{4,5} In this context, this study aims to assess indications and complications of second trimester abortion practices by a well-trained health professionals in the hilly district hospital of Nepal.

METHODS

This is a retrospective cross-sectional study conducted based on the data recorded in Health Management Information System in the Ilam District Hospital, Nepal. This hospital covers health services for rural hilly districts such as Ilam, Pachthar, Taplegung and Terathum. A total of 75 patients were admitted for second-trimester abortion to this district hospital in a one year period from 16th July 2017 to 15th July 2018, and the abortion services were provided to those patients by an approved certified medical doctor. The pregnant women and their relatives were counseled adequately after determining the fetal age by clinical examinations, diagnostic ultrasound, and based on the last menstrual period. Indications for the second-trimester abortion, possible complications of abortion, and methods of abortion were explained to both patients and their relatives before taking an informed consent for the abortion procedure. The instructions, indications, and protocols were followed according to the government's guidelines of Nepal. Protocols for medical abortion (induced abortion) is using tab mifepristone 200mg per oral under supervision followed by tab misoprostol 800mcg loading dose by buccal/vaginal route after twenty-four-hour of mifepristone, then 400mcg of misoprostol every 3 hourly until expulsion or a total of five doses. In the case of failed expulsion after 5 doses, the patient was re-evaluated, and the next cycle was started after 24 hours of gap. In advanced gestational age ≥ 24 weeks, previous Cesarean section (CS), grand multigravida, loading doses were reduced to 400mcg and interval was 4-6 hours (maximum 5 doses). It should be noted that the current protocol for abortion does not recommend a loading dose of misoprostol 800mcg and a maximum of five doses. The current guidelines suggest tab misoprostol 400mcg continued every three hourly until the expulsion. Similarly, protocols for surgical abortion i.e. dilatation and evacuation (D&E) were misoprostol 400mcg given every 3 hourly until the cervix becomes soft and dilated enough to insert an appropriate cannula. Descriptive analysis of the data were completed using Microsoft Excel Program.

RESULTS

The findings of this study are based on a total of 75 patients (all patients in one fiscal year) who received second-trimester abortion services at Ilam District Hospital, Nepal. The data was obtained from the Health Management Information System logbook at the hospital.

Table 1: Distribution of age, parity, literacy, and caste

	Number (n=75)	Percentage(%)
Age (mean & range)		
Age 15-19	13	17.33
Age 20-24	20	26.66
Age 25-29	11	14.66
Age 30-35	12	16
Age ≥35	19	25.33
Literacy		
Illiterate	8	10.66
Primary	12	16
Secondary	44	58.66
Higher Secondary	9	12
Bachelor and more	2	2.66
Caste		
Brahman	8	10.66
Chettri	7	9.33
Janajati/Adibasi / Madhesi	55	73.33
Dalit/Others	5	6.66
District		
Ilam	54	72
Pachthar	12	16
Taplejung	8	10.66
Others(Terathum)	1	1.33

The most common age group receiving the second-trimester abortion was 20-24 years (26.66%) followed by >35 years. Majority of these women were literate up to the secondary level of education(58.66%). Majority of patients reside from Ilam districts(72%) and most of them were Janajati/Adibasi/Madhesi by caste(73.33%).

TABLE 2: Gestation age and parity of patients

Gestational age	Numbers (n=75)	Percentage(%)
12-16 weeks	47	62.66
16-20 weeks	21	28
20-24 week	6	8

≥24 week	1	1.33
Parity		
Nullipara	22	29.33
Multipara	45	60
Grand multi	8	10.66

Most of the patients were in the early second trimester (62.66%) and were multipara (60%).

TABLE 3: Reason for abortion

	Numbers (n=75)	Percentage (%)
Mental /maternal causes(completed family/ contraceptive failure)	62	82.66
Fetal cause	4	5.33
Rape	0	0
Incest	1	1.33
Others(unmarried)	8	10.66

Common indications for termination were mental/maternal cause(82.66%) followed by being unmarried (10.66%).

TABLE 4: methods of termination

Methods	Number (n=75)	Percentage (%)
Medical induction	52	69.33
D&E	23	30.66

Medical induction (69.33%) was more than Dilation and evacuation (30.66%).

TABLE 5: post-abortion contraceptive used

Contraceptive methods	Numbers (n=75)	Percentage (%)
Barriers	15	20
Short-term(pills, depo)	27	36
long-term(implant/IUCD)	26	34.66
Minilap(permanent)	0	0
None	7	9.33

Maximum patients chose short term contraception (36%) followed by long term contraception (34.66%).

DISCUSSION

Recent evidence suggests that between 2015 and 2019, on average, 73.3 million induced (safe and unsafe) abortions occurred worldwide each year.⁶ Majority of these abortions are performed in the 1st trimester. The global incidence of second-trimester abortions are difficult to obtain due to legal restrictions in

some countries. However, it is estimated to be between 10-15% of all abortions.⁷ Indications for abortion vary greatly from country to country. In Nepal, indications for second-trimester abortion are physical or mental health, rape or incest, and fetal impairment.⁸ Surgical abortion in early second trimester is more effective and safer than medical treatment if the service provider is well-trained and can be performed on an outpatient visit. Although, most women consider medical abortion as the non-invasive method but this may require patients to stay in the hospital until expulsion. This process needs more monitoring and hospital resources compared to surgical abortions.^{9,10}

Medical abortion is done by the use of a drug or combination of drugs. The combination of mifepristone and misoprostol is an effective and established method for second-trimester medical abortions. Contraindications of these medications include known or suspected ectopic pregnancy, coagulation disorder, chronic adrenal failure, inherited porphyria. Caution is required if the woman is on corticosteroid therapy, severe anemia, cardiovascular risk factors. Side effects and complications of these drugs are nausea, vomiting, diarrhea, uterine rupture, major hemorrhage associated with prolonged retention of the placenta.¹¹

This study shows that the majority of patients undergoing abortion were aged 20-25 years (26.66%), followed by over 35 years (25.33%) age group which is similar to the study done by Karki et al.¹², Shrivastava et al.¹³, and Pandit et al.¹⁴ Our study also showed that most of these women were educated up to the secondary level (58.66%) and belonged to Janajati/Adibasi/Madhesi (73.33%) castes which is in contrast to other studies, which may be due to the higher literacy rate in this region that supports them to make an decision about the abortion. In our study we found, the common gestational period was 12-16 weeks (62.66%) i.e in the early second trimester followed by 16-20 weeks (28%) and most women were multipara (60%), which is similar to the findings seen in the study done by Karki et al.¹² and pandit et al.¹⁴

Most women wanted to terminate the pregnancy because they already had the desired number of children and having another child was going to put an extra economic

burden on their family. This unintended pregnancy in many cases were due to the failure of contraception or unprotected sex. Abortion was performed on the majority of these women on the mental health grounds of the pregnant women. Common indications/reasons for second-trimester terminations in this study were mental health (including contraceptive failure and completed family) and the figure is about 82.66% followed by others (unmarried i.e 10.66%). The common methods for terminations were medical induction (69.66%) followed by surgical methods (30.33%) as shown in this study and are almost similar to the findings obtained by Karki et al.¹², Shrivastava et al.¹³, and pandit et al.¹⁴ Post-abortion contraception acceptance was higher in our study where most of the patients opted for short-term methods such as OCP, injection depo (36%) followed by long-term methods such as Implant/IUCD (34.66%), and barriers methods (20%). A higher rate of acceptance may be due to the adequate and good counselling from the experienced health worker regarding the benefits of contraception. Similar findings were noted by pandit et al.¹⁴ but different from Karki et al.¹², where most clients did not use any methods of contraception following the abortion.

The risk of complications is relatively higher in 2nd trimester abortion in both the surgical and medical abortion in comparison to the 1st trimester abortion. However, the complications can be reduced if the procedure is performed by a skilled practitioner. A recent study shows that D&E is safer with lower complications. However, direct comparisons between these two methods cannot be made for the other individual complications.¹⁵ Our study shows no major complications for the women. The possible explanation could be that the procedures were performed by a well-trained health professional as well as proper procedure selection, either surgical abortion or medical abortion, and all the procedures followed the standard protocol as per government guidelines and continuous monitoring were provided to the patients.

ETHICAL CONSIDERATION

This research has obtained ethical approval from the Nepal Health Research Council (ref number-1921). The hospital permission was obtained before data collection. Only the first author had access to anonymized data that was recorded

in the Health Management Information System of the hospital. The hospital and the first author maintained the confidentiality and anonymity of the individual patient details. There was no direct contact with patients for this study as it is a retrospective cross-sectional study. Therefore, patients had no impact during the data collection process.

CONCLUSIONS

Since limited hospital have services for second-trimester abortion, this study make a case for the services to get prioritized, and the need to scale up the services at the district-level hospitals across the country. This will enhance the availability and accessibility of the quality services for the patients, as a result, unsafe abortion practices and complications due to the abortion procedures will decrease, which will eventually decrease the morbidity and mortality among the pregnant women improving the maternal health. Our study also suggests that proper counselling on contraception services has the potential to increase the uptake of family planning methods which will decrease the number of unwanted pregnancies and its sequelae.

LIMITATION OF THE STUDY

Our study was a single-center study and had a small sample size, so we recommend a larger sample size and multi-centric study with longer follow-up by approved certified medical doctors for 2nd-trimester abortion.

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