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Original Research Article

Post abortion contraception: A follow up study in women undergoing first and second trimester abortion at a tertiary care centre

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ABSTRACT

Background: Worldwide 75 million women need post abortion care (PAC) services each year following safe or unsafe induced abortions and miscarriages. Majority of them do not wish to conceive in near future and are receptive towards using contraception. Contraceptive counselling and basket of choices should be made available to all women undergoing abortion and her right to decline or postpone this care should be respected while recognizing that each woman has a unique unmet need of contraception.

Aims and Objectives: To compare the acceptance and continuation of various contraceptive choices offered after first and second trimester abortion.

Materials and Methods: A retrospective study was conducted at a tertiary care hospital in which women who underwent first and second trimester abortion over a period of one year were interviewed regarding their acceptance and continuation of the contraceptive method till six months post abortion.

Results: A total of 378 women underwent first and second trimester abortions over one year, of which 61.3% had resulted from failure of contraception. Women were grouped into Group A for those undergoing first trimester and Group B for women undergoing second trimester abortion for study purpose. Average age of women in group A was 28.9 years and in group B was 26.5 years. Mean period of gestation of pregnancy in group A was 7.5weeks and in group B was 19.5 weeks. In group A 96% parous women had conceived as a result of failure of contraception of which 90% were using natural method (Coitus Interruptus). Group B majority (76.3%) women were nulliparous and early parous (P1, P2) and indication for termination of pregnancy in them were gross congenital anamolies (GCA) in fetus while in rest of multiparous were due to failure of contraception. With group A 53.1% nulliparous women did not opt for any contraception whereas 48.6% primiparous and second parous opted for long acting reversible contraception(LARC) –Intrauterine contraceptive device(IUCD) in contrast to 66% multiparous opting for permanent sterilization at the time of abortion. In group B 45.3% nulliparous and early parous opted for depot medroxy progesterone acetate (DMPA) and 64.2% multigravidas underwent permanent sterilization.

Conclusion: Post abortion care must include counselling and choice of contraceptive basket. Women with future reproductive plans preferred LARC after first trimester abortion whereas DMPA was most acceptable method of contraception after second trimester abortion. Women were most satisfied with LARC and permanent methods compared to methods that required daily intake of pills. There is need of effective contraceptive choices according to the reproductive plans of the women to reduce the burden, morbidity and mortality associated with abortions.

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1. Introduction

Post abortion family planning is the initiation and use of family planning methods at the time of management of

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an abortion or before fertility returns after the abortion. The World Health Organization estimates that globally, around 210 million women become pregnant each year, of which 75 million pregnancies end in either induced or spontaneous abortions or still births.[1] Majority of these women do not wish to conceive again in the near future. WHO recommends spacing of at least 6 months between abortion and next pregnancy. Therefore, providing family planning services as a part of postabortion care can improve contraceptive acceptance and can help break the cycle of repeated unwanted pregnancies.

Following an induced or spontaneous abortion, ovulation can return as soon as 8–10 days later and usually within one month thus contraception initiation as soon as possible within the first month is important for women who desire to delay or prevent a future pregnancy.[2,3] All contraceptive options may be considered after an abortion.[4]

The following contraceptive methods may be started immediately (MEC Category 1) after a surgical or medical abortion (first and second trimester, and also after a septic abortion): combined hormonal contraceptives (CHCs), progesterone-only contraceptives (POCs) and barrier methods (condoms, spermicide, diaphragm and cap). The diaphragm and cap are unsuitable until 6 weeks after second-trimester abortion. Intrauterine devices (IUDs) may be started immediately after a first-trimester surgical or medical abortion (MEC Category 1) or after second-trimester abortion (MEC Category 2), but should not be started immediately after septic abortion(MEC Category 4) insertion of an IUD may substantially worsen the condition. CHCs include combined oral contraceptives (COCs), the contraceptive patch (P), the combined vaginal ring (CVR) and combined injectable contraceptives (CICs). POCs include progesterone-only pills (POPs), levonorgestrel (LNG) or etonogestrel (ETG) implants, depot medroxyprogesterone acetate (DMPA) injectables, and norethisterone enanthate (NET-EN) injectables. IUDs include copper-bearing IUDs (Cu-IUD) and levonorgestrel-releasing IUDs(LNG-IUD's).[5,6]

For individuals undergoing surgical abortion and wishing to use contraception it is recommended to initiate the contraception at the time of surgical abortion.

For individuals undergoing medical abortion with the combination of mifepristone and misoprostol regimen or with misoprostol alone and those who choose to use hormonal contraception (pills, patch, ring, implant or injections) it is advocated that they be given the option of starting hormonal contraception immediately after the first pill of the medical abortion regimen For those who choose to have an IUD inserted it is suggested that IUD be placed after confirming the success of the abortion procedure.

Although immediate initiation of intramuscular depot medroxyprogesterone acetate (DMPA) is associated with a slight decrease in the effectiveness of medical abortion regimens[7] immediate initiation of DMPA should still be offered as an available contraceptive method after an abortion.

Contraception should be provided only where the women has given free and informed consent to avail the same, full range of contraceptive options, including a wide range of modern, safe and affordable methods in a non discriminatory manner should be made available. Women's right to privacy and confidentiality in the receipt of contraceptive information and services should be respected and Post-abortion contraceptive information and services should be available and accessible to adolescents without parental or guardian authorization.[8] Evidence and best practice consistently show that many women and girls find non-judgemental and sensitive contraceptive counselling appropriate at the time of an abortion.[9]

2. Materials and Methods

A retrospective study was conducted at a tertiary care hospital in which women who underwent first and second trimester abortion over a period of one year were interviewed telephonically regarding their acceptance and continuation of the contraceptive method till six months post abortion. Women were grouped into Group A for those undergoing first trimester and Group B for women undergoing second trimester abortion for study and analysis purpose. Data was analysed using Microsoft excel software (Windows 10).

3. Results

A total of 378 women underwent first and second trimester abortions over one year of study period, of which 61.3% had resulted from failure of contraception. In this study, the rate of post-abortion family planning utilization was 89.4%. Women were grouped into Group A for those undergoing first trimester and Group B for women undergoing second trimester abortion for study purpose. Nearly one third (33.06%)women included in the study were illiterate. (Table 1) More than 80% of the women included in study group were financially dependent (housewife). (Table 2) Contraceptive utilization was poor (only 20%) amongst unmarried women.

3.1. Group A

Comprised 236 women of which ten were lost to follow up, Average age of women was 28.9 years. 32.6% women were illiterate whereas approximately 67% of women had primary or higher education. Approximately 80% of women were house wife. Mean period of gestation of pregnancy in group A was 7.5 weeks. Majority of women were second parous (44.9%) while nulliparous women were the least (13.5%). 96% Parous women had conceived as a result of failure of contraception of which

90% were using natural method (Coitus Interruptus). Two women conceived as a result of sexual assault. (Table 3) Nearly 53% nulliparous women did not opt for any contraception whereas 48.6% primiparous and second parous opted for long acting reversible contraception (LARC) –Intrauterine contraceptive device(IUCD) whereas 66% multiparous opted for permanent sterilization at the time of abortion.(Table 4,Figure 1) Six women (2.6%) discontinued the contraceptive they chose at the time of abortion, two nulliparas discontinued due to change in reproductive plans and one due to forgetting the pills frequently. Two primiparas discontinued combined oral contraceptive (COC's) due to non compliance and one primipara discontinued DMPA after 3 months only, due to non affordability and accessibility issues.

3.2. Group B

Comprised of 142 women of which seven were lost to follow up. Mean age of women was 26.5 years. Close to 34% women were illiterate and 66% had some degree of formal education. 84.5% were housewife. Mean POG at abortion was 19.5 weeks. Nearly 76% women were nulliparous and early parous (P1, P2) and indication for termination of pregnancy in them were gross congenital anamolies (GCA) in fetus while in rest of multiparous were due to failure of contraception, mostly due to inconsistent use of natural method. (Table 5) Close to 45% nulliparous and early parous opted for depot medroxy progesterone acetate (DMPA) and 64.2% multigravidas underwent permanent sterilization.(Table 6, Figure 2) Three(4.54%) women discontinued contraceptive accepted at the time of abortion, one had abnormal uterine bleeding following IUCD insertion, for which cause was not known and other two were non compliant with COC's.

Table 1: Educational Status of women in Group A and Group B

Education status	Group A	Group B
Illiterate	77	48
Primary	89	66
Secondary	61	25
Graduate	9	3
Total	236	142

Table 2: Occupational Status of women in Group A and Group B

Occupation	Group A	Group B
Student	19	11
Housewife	188	120
Self employed	26	8
Service class	3	3
Total	236	142

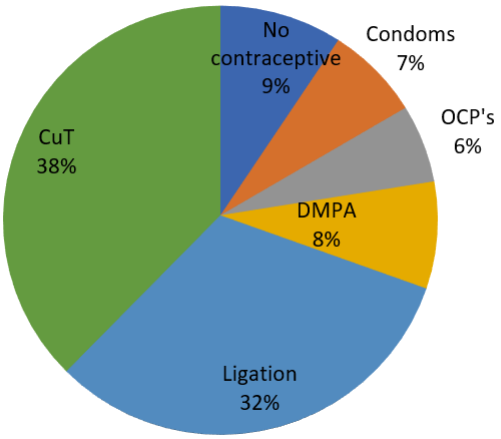

Figure 1: Contraceptive chosen after first trimester abortion

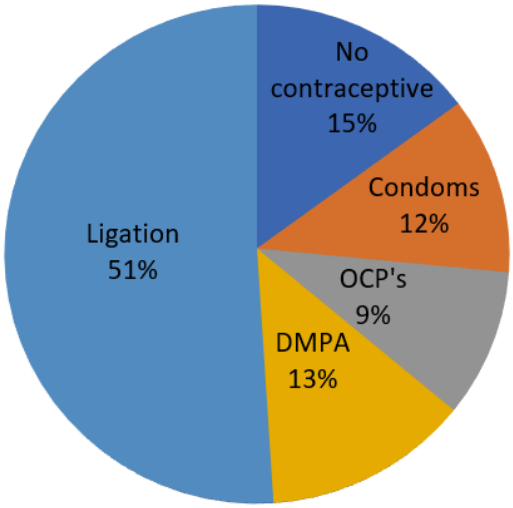

Figure 2: Contraceptive chosen by women undergoing second trimester abortion

4. Discussion

In the present study failure of contraception remains the most common cause of abortion after a first trimester abortion and a major cause of abortions during second trimester excluding the gross congenital anamolies.

The magnitude of PAFP utilization revealed in this study is (89.4%) consistent with the findings of studies conducted in Jimma (71.5%).[10] The magnitude of contraceptive acceptance correlates well with the knowledge and counselling regarding the available contraceptive choices according to the same study. KAP questionnaire was not the part of the present study which is the shortcoming of the

Table 3: Indication for abortion and parity of women undergoing first trimester abortion

Reason for abortion	P0	P1	P2	P3	P4	P5	Total
Failure of contraception	09	40	102	40	13	1	205
Unmarried	19	01	0	0	0	0	20
Life saving	2	3	2	0	0	0	07
Sexual assault	1	0	1	0	0	0	02
Aneuploidy	1	0	0	0	0	0	01
Gross congenital anamoly	0	0	1	0	0	0	01
	32	44	106	40	13	1	236

P0- Nulliparous , P1- Primiparous, P2- Second Para, P3- Third Para, P4- Fourth Para, P5- Fifth Para

Table 4: Contraceptive chosen at the time abortion in women undergoing first trimester abortion

Contraceptive	P0	P1	P2	P3	P4	P5	Total
No contraceptive	17	01	04	0	0	0	22
Condoms	02	03	10	02	0	0	17
OCP's	06	04	04	0	0	0	14
DMPA	04	06	06	03	0	0	19
CuT	03	27	46	08	05	0	89
Ligation	0	03	36	27	08	01	75
	32	44	106	40	13	1	236

OCP's – Oral Contraceptive Pills, DMPA- Depot Medroxy Pogesterone Acetate, CuT- copper T device;
P0- Nulliparous , P1- Primiparous, P2- Second Para, P3- Third Para, P4- Fourth Para, P5- Fifth Para

Table 5: Indication for abortion and parity of women undergoing second trimester abortion

Reason for abortion	P0	P1	P2	P3	P4	P5	Total
Failure of contraception	04	02	08	08	05	01	28
Unmarried	11	0	0	0	0	0	11
Life saving	02	01	0	0	0	0	03
Sexual assault	01	0	0	0	0	0	01
Aneuploidy	01	0	0	0	0	0	01
Gross congenital anamoly	49	35	13	0	0	0	97
Self MTP Pill intake	0	0	01	0	0	0	01
	68	38	22	08	05	01	142

Table 6: Contraceptive chosen at the time abortion in women undergoing second trimester abortion

Contraceptive	P0	P1	P2	P3	P4	P5	Total
No contraceptive	12	03	02	0	01	0	18
Condoms	15	15	09	01	02	0	42
OCP's	08	01	0	0	0	0	09
DMPA	33	19	06	0	0	01	59
Ligation	0	05	07	02	0	0	14
	68	43	24	03	03	01	142

OCP's – Oral Contraceptive Pills, DMPA- Depot Medroxy Pogesterone Acetate;
P0 – Nulliparous, P1- Primiparous, P2- Second Para, P3 – Third Para, P4- fourth Para, P5- Fifth Para

present study and further larger studies can be conducted to assess the knowledge, attitude and contraceptive practices amongst post abortal women.

Unmarried women mostly (80%) did not opt for any post abortal contraceptive probably due to lack of partner support and not being sure of the future reproductive plans these findings are consistent with the findings of the study by Tekle Lencha et al. where married women were 3.8 times more likely to utilize post-abortion family planning than single women.[10]

In present study women with future reproductive plans whether undergoing first or second trimester abortions preferred using Long Acting Reversible Contraceptive(LARC) compared to the daily intake of pills or shorter acting contraceptives. LARCs include all types of contraceptive implants, intrauterine devices (IUDs) and hormonal intrauterine systems (IUSs). A large body of evidence shows that they are the most effective methods[11] of reversible contraceptives as well as the most cost-effective.[12] Furthermore, same-day initiation of a

LARC (either on the same day as a surgical abortion or immediately after a medical abortion) has been associated with higher continuation and satisfaction and a lower rate of unwanted pregnancy within the first year of use.[13–15] For women with no future reproductive plans permanent sterilization serves the contraceptive needs best.

Continuation of contraceptive chosen at the time of abortion depends on a number of factors some of which were highlighted by the present study motivation, cost , compliance, side effect profile, change in reproductive plans and familial and social factors are few amongst other reasons for discontinuation of chosen contraceptives. Studies are lacking pertaining to discontinuation of chosen contraceptives this opens scope for larger studies for the same and this is the strength of the present study that the patients were followed for the continuation of contraceptives after 6 months.

Furthermore, if the women discontinues the chosen contraceptive due to cost, compliance or side effect profile what are the other options available to her should also be offered to her whenever needed.

5. Conclusions

Post abortion care must include counselling and choice of contraceptive basket. Women with future reproductive plans prefer LARC after first trimester abortion whereas DMPA was most acceptable method of contraception after second trimester abortion. Women were most satisfied with LARC and permanent methods compared to methods that required daily intake of pills. There is need of effective contraceptive choices according to the reproductive plans of the women to reduce the burden, morbidity and mortality associated with abortions. Unintended pregnancy. Provision should exist for an alternative contraceptive in case the chosen contraceptive doesn't suit the women's need.

6. Source of Funding

None.

7. Conflict of Interest

None.

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