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'STUDY OF LONG ACTING REVERSIBLE CONTRACEPTION(LARC) AFTER ABORTION'

Obstetrics & Gynaecology

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ABSTRACT

Background: The study was conducted to evaluate clinical outcome of post abortion intrauterine contraceptive device (PAIUCD) insertion in terms of acceptability, complications, expulsion and continuation rate.

Methods: A prospective observational study was conducted in GMCH, Aurangabad from 2018 to 2020 after Institution Ethics committee approval.

Results: Total 250 women were recruited in study. Acceptance rate of PAIUCD was 13.13%. Their age ranges from 20-36years.Majority of women who underwent PAIUCD insertion (77.3%) were from lower middle socioeconomic class of Modified Kuppuswami scale. Around 54.8% were primiparas. Complication rates of immediate PAIUCD insertion were low. Not a single case of uterine perforation was noted. The complications associated with PAIUCD were heavy menstrual bleeding (7.94%), irregular bleeding (4.2%), dysmenorrhea (6.5%) and pelvic infection (1.4%). Expulsion rate was 7.47%. It was found to be higher (5.53%) in cases of mid trimester abortion than in cases of first trimester abortion (1.87%). Continuation rate was78.97% at the end of 6 months.

Conclusion: Higher rate of continuation with lower rate of expulsion, pelvic inflammatory disease and minimal risk of perforation were noted after PAIUCD insertion. PAIUCD was safe and well tolerated by women.

KEYWORDS

PAIUCD, LARC, Expulsion rate, Removal rate, continuation rate

INTRODUCTION

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 birth[1](WHO 2011). Majority of these women do not want to become pregnant again in the near future. WHO also recommends spacing of at least 6 months between abortion and next pregnancy. Therefore, providing family planning services as a part of post-abortion care can improve contraceptive acceptance and help break the cycle of repeated unwanted pregnancies. The provision of post-abortion family planning services will help in decreasing maternal morbidities by averting unwanted births.[1]

Abortions account for approximately 8% of maternal mortality in India and family planning could prevent 90% of maternal mortality associated with unsafe abortions[1].Since women receiving abortion services at a facility usually do not return for family planning services even though they do not want to become pregnant again in the near future. Immediate post abortion period when the woman is still at the facility or in contact with the health care provider is the opportune time to provide family planning counselling and services[1].

In recent years, many attempts have been made to prevent induced and repeat abortion by greater access to long-acting reversible contraceptives (LARC) such as IUCDs. Immediate PAIUCD insertion after the termination of pregnancy is a very convenient way to provide contraception and prevent repeat abortion as it is an opportune moment to carry out this very short, easy, and safe procedure. As the cervix is dilated, insertion is virtually painless[2].Following insertion; the woman is protected immediately, before ovulation returns, usually within 7–10 days after first-trimester abortion[2].

Ours is the tertiary care centre and is recognized as Model Comprehensive Abortion Care (CAC) Centre. In this centre around 1200 women undergo abortions every year. Providing contraceptive services to these women is a major challenge. Contraceptive counselling and provision of contraception help women avoid another unintended pregnancy and risk of undergoing unsafe abortion. Long Acting Reversible Contraceptive (LARC) is a method which helps women prevent unintended pregnancy following an abortion[3].The objective of this study was, to study outcome of post abortion IUCD insertion.

MATERIAL AND METHODS

It was a prospective study of women seeking abortion care in Department of Obstetrics and Gynaecology, GMCH, Aurangabad and desirous of CuT- 380A as post abortion contraceptive. Total 250 women were recruited in study from 2018 to 2020.

INCLUSION CRITERIA:

- Women willing for PAIUCD insertion and willing to participate in study.

EXCLUSION CRITERIA:

- Women who had current pelvic inflammatory disease or septic abortion
- Post abortion haemorrhage
- Injury to genital tract during abortion
- Intracavitary or symptomatic uterine fibroids.
- Ovarian, cervical or endometrial cancer.
- Women aborted outside the hospital.
- Severe anaemia (Hb <7)
- Not willing to participate in study.

After IEC permission, a woman who desired IUCD(CuT-380A) as post abortion contraceptive method were counselled regarding advantages, limitation, effectiveness and side effects of IUCD. Eligible women were enrolled for the study. Written informed consent was taken from all women included in the study. History and thorough general examination followed by systemic examination was done. Baseline preliminary investigations were noted. After assessing completeness of abortion, IUCD was inserted by "no touch withdrawal technique". She was advised to take Tablet Amoxicillin-clavulanic acid 625 mg orally twice a day for 5 days. Before leaving health care facility, IUCD card given to woman having personal details, time and date of insertion and follow up details were mentioned on the card. Women called for follow up either on 6 weeks or after next menstrual periods whichever is earlier and next follow up after 6 months. Follow up either personally or telephonically through predecided questionnaire and observation tables were made. All cases were evaluated to assess expulsion, pelvic infection and any other complications. Warning signs of pelvic infection like fever, altered colour of vaginal discharge lower abdominal pain, painful intercourse and heavy menstrual bleeding lasts as long /was twice as heavy than usual were explained to women before leaving the health care facility.

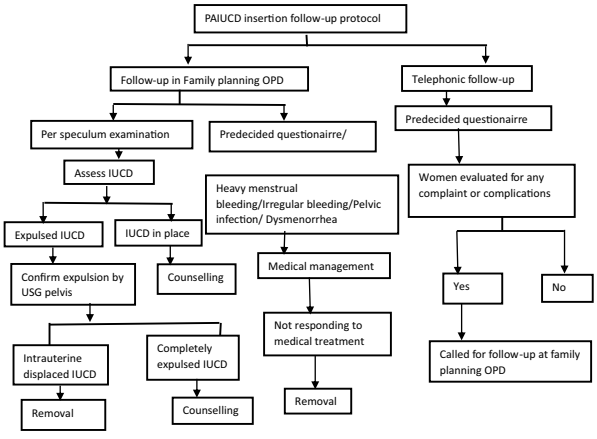


Fig 1: Flowchart showing follow-up protocol of PAIUCD insertion

Following outcome were studied at end of study

- Acceptability of post abortion IUCD (PAIUCD).
- Complications after PAIUCD insertion.
- Continuation rate of IUCD at 6 months.
- Expulsion rate and removal rate with reason.

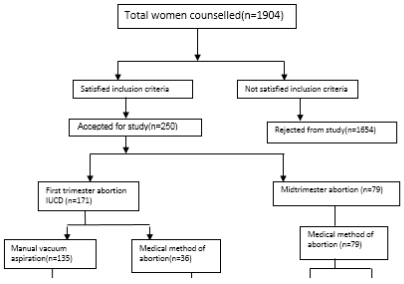
STATISTICALANALYSIS

Baseline demographic data were compared according to treatment group to assess for significant difference using Fisher's exact test or Chi-square test for categorical data Student t-test for continuous data. The data were entered in MS excel spread sheet and analysis were done using statistical package for social science version 21.0 (SPSS).

RESULTS

During the study period, a total 1904 women were counseled for post abortion contraception and 250 women accepted PAIUCD. The acceptability rate of PAIUCD was 13.13%.

Out of 250, in 171 women PAIUCD insertion was done after 1st trimester abortion and in79 women after mid trimester abortion. Around 102 women aborted by medical method of abortion (MMA) and 148 women aborted by surgical method (MVA). At end of 6 months 214 followed up either personally or telephonically and 36 women were lost to follow up. {Fig 2}



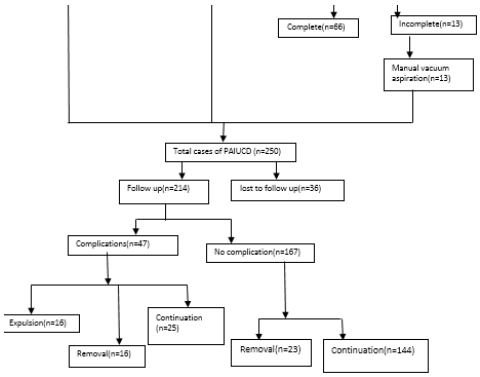


Fig 2: Flowchart showing recruitment of study participants

Table 1:Reasons for refusal of PAIUCD

Reason for refusal	Total women who refused PAIUCD n=1654[a]	%
Fear of side effects	908	54.89
Negative feedback from family and friends	514	31.07
Resistance by family members and husband	321	19.4
Fear of displacement or migration of IUCD	233	14.08
Discomfort during intercourse	135	8.1
Fear of cancer	121	7.31
Not able to take decision	107	6.46
Fear of infertility	90	5.44

[a]Few cases more than one reason for refusal, hence total percentage here is more than 100

The main reason for refusal of PAIUCD was fear of side effects (54.89%) followed by negative feedback from family and friends (31.07%). {Table 1}

Table 2: Baseline characteristics of women with acceptability of PAIUCD

Variables		Number of women(n=250)	%
Age in years	≤20-25	108	43.3
	26-30	117	46.7
	≥31	25	10
Parity	P0	27	10.8
	P1	137	54.8
	≥P2	86	34.4
Residence	Rural	130	51.8
	Urban	120	48.2
Education	Illiterate	3	1.2
	Primary	37	14.8
	Secondary	153	61.33
	Higher	57	22.66
Socioeconomic status*	Upper	3	1.33
	Upper middle	10	4
	Lower middle	115	46
	Upper lower	78	31.33
	Lower	44	17.33

***Socioeconomic status is according to Modified Kuppuswami Scale**

In present study, the highest acceptance was seen in the age group of 26-30 years. Majority of women were coming from rural areas (51.8%). Amongst the total women, 61.3% had secondary education. Of all the cases studied,77.3% belonged to lower middle and upper lower socioeconomic status. According to present study, higher acceptance rate observed among primiparas (54.8%).{Table 2}

Table 3: Outcome of post abortion intrauterine contraceptive device insertion

Outcome of PAIUCD	Total number of women (n =214)[b]	%
Without complications	167	78.03

Complications	Heavy menstrual bleeding		17	7.94
	Irregular bleeding		9	4.2
	Dysmenorrhea		14	6.5
	Loss of string		4	1.86
	Pelvic infection		3	1.4
Total number of complications			47	21.96
Expulsion of PAIUCD according to gestational age		First trimester abortion	3	1.38
		Midtrimester abortion	13	6.07
Total expulsion rate			16	7.47
Removal	Due to complications	Heavy menstrual bleeding	2	6.89
		Dysmenorrhoea	1	3.44
		Loss of string	2	6.89
		Pelvic infection	1	3.44
	Due to social reasons	Sexual discomfort	7	24.13
		Wants to conceive again	10	34.48
		Family and partner pressure	6	20.68
Total removal rate			29	13.55
Continuation rate			169	78.97

[b] **36 women lost to follow up at 6 months**

In current study follow up and evaluation was done in 214 women after PAIUCD insertion; amongst which complications were noted in 47 women. Complications associated with PAIUCD insertion were heavy menstrual bleeding(7.94%),irregular bleeding (4.2%), dysmenorrhoea (6.5%) and pelvic infection in 1.4% women. Removal rate of PAIUCD was 13.55% out of 214 women.

The expulsion rate was 7.4% and maximum expulsions noted after mid trimester abortion (6.07%). The continuation rate was 78.97%. There was no case of uterine perforation in current study. {Table 3}

DISCUSSION

Intrauterine device is a long lasting and reversible method of birth control with cumulative pregnancy rate of less than 1 per 100 women within first year of use. According to WHO (2015) insertion of IUCD can be done if abortion is complete.[6]

In present study, around 13.13% women accepted IUCD as post abortion contraceptive method, study conducted by Sushanta K et al also had similar acceptance rate (11%).[11]

Heavy menstrual bleeding (7.94%) and dysmenorrhoea (6.5%) were most common complications observed. Sexual discomfort (24.13%), desire of future pregnancy (34.48%) and family or partner pressure (20.68%) were found most common reasons for removal of PAIUCD. Heavy menstrual bleeding (6.8%), dysmenorrhoea (3.4%) and pelvic infection (3.4%) not responding to medical management were found in some cases as reasons for removal. The present study concludes social reasons as the most common reason for PAIUCD removal.

Three cases of pelvic infection (1.4%) were found at 6 weeks follow-up visit in present study. They were treated with antibiotic on outpatient basis and one (0.46%) woman underwent IUCD removal. The trial of IUCD insertion by Stanwood et al, immediately following induced abortion reported lower pelvic inflammatory disease rate (0.4 per 100 woman-years)[7].

In present study there was no case of uterine perforation. Pohjoranta et al also reported no case of uterine perforation after IUD insertion.[8]

In present study the cumulative continuation rate was 78.97% at 6 months follow-up visit which was comparable to Drey EA et al.[9]

In the present study, the expulsion rate was 7.4%. Expulsion rate after first trimester was 1.87% and after mid-trimester abortion was 5.53%. These expulsion rates were comparable to Bednarek et al[4] and WHO study[5].Higher expulsion rate was noted after midtrimester abortions as compared to first trimester abortion because of uterine involution and uterine contractions may cause downward displacement of IUCD.[7]

In this study the continuation rate with immediate post abortion IUCD insertion was 78.97% at 6 months follow up visit which was comparable to the McNicholas et al study; hence the safety and high rates of continuation of post abortion IUCD have been clearly demonstrated.[10]

CONCLUSION

- PAIUCD insertion seems to be safe and well tolerated by the women. It is an attractive option for spacing pregnancies as well as limiting family size.
- Higher rate of continuation with lower rate of expulsion, pelvic inflammatory disease and minimal risk of perforation observed after PAIUCD insertion.
- It provides a good opportunity to achieve long term contraception with minimal discomfort to the women.
- The acceptance was found to be poor, social reasons were most common reason for IUCD removal, hence couple counseling is an important aspect to create awareness about family planning services including IUCD.

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