



## IMMEDIATE POST-PARTUM INTRA UTERINE CONTRACEPTIVE DEVICE INSERTION: A REPORT ON ITS ACCEPTABILITY FROM JAWAHAR LAL NEHRU MEDICAL COLLEGE & HOSPITAL, BHAGALPUR, BIHAR

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### ABSTRACT

India is the second largest populous country in the world with a total population of 121 crores (Census 2011). Although there are many reasons behind the rapidly growing population, high unmet need for contraception is an important barrier to check population growth in the country. **Methodology:** This hospital-based prospective longitudinal study was conducted from November 2019 to October 2020 at the Department of Obstetrics and Gynecology, Jawahar Lal Nehru Medical College & Hospital, Bhagalpur, India. All registered women who delivered by normal vaginal delivery within the study duration were eligible for inclusion in the study. **Results:** 180 eligible postpartum patients were counselled for PPIUCD insertion during their antenatal visits. Out of this, 68 patients accepted PPIUCD insertion with proper consent. Acceptance rate was 37.8%. **Conclusion:** Immediate postpartum IUCD insertion is safe, effective, low cost, long acting spacing method. It is concluded from our study that it is a feasible and acceptable method of contraception.

**KEYWORDS :** Immediate Post-Partum Intra Uterine Contraceptive Device, Acceptability

### INTRODUCTION

India is the second largest populous country in the world with a total population of 121 crores (Census 2011) [1]. Although there are many reasons behind the rapidly growing population, high unmet need for contraception is an important barrier to check population growth in the country. According to National Family Health Survey-4 (NFHS-4), the current total unmet need for contraception is 12.9% and unmet need for spacing is 5.7% [2]. Population control is not just a target to achieve but also it is a path to better health care in India by decreasing the burden on health-care infrastructure. Needless to say, good contraceptive care of reproductive age women will help in achieving the objective of stable population in future.

Good contraceptive care includes all aspects of contraception including method of contraception to be used and appropriate timing. In contrast to routine care, contraceptive care of a mother is easily overlooked after delivery resulting in unintended pregnancy, thereby increasing the maternal morbidity and mortality. Besides, if a woman does not use any contraception after birth of the baby, she will always be worried about getting pregnant and that may affect rearing up of her child. So clearly, there is need for contraception in the postpartum period. Good contraceptive method is also needed for spacing between childbirths and to check fertility for a woman throughout her reproductive period. Intrauterine copper devices provide a useful method of contraception after birth of a baby as they do not affect breast feeding and once inserted, they remain effective for a long time. In India, the device Copper T 380A (CuT380A) is being supplied free of cost by the government and it is effective for 10 long years. However, insertion of copper T in postpartum period also has certain disadvantages like higher expulsion rates and missing threads [3]. However, often mothers are very apprehensive about getting copper T inserted in the postpartum period and insist to come back after 6 weeks (interval) for the same. Therefore, we should have enough evidence to support the most appropriate timing of IUCD insertion especially in Indian scenario where safety and efficacy of the contraceptive method is always a concern due to resource limitation and less awareness about contraceptive needs of a woman among the population. A cost-effective, long acting, reversible contraceptive method with least side effects is the need of the country.

postpartum lactating women with advantage outweighing the disadvantages. Advantages of immediate postpartum insertion of the IUD include client motivation, safety, convenience, assurance of no pregnancy, does not interfere with lactation, facilitates adequate birth spacing, immediately reversible and does not require repeated health care visits for contraceptive refills. PPIUCD insertion gives these women an extra edge of leaving the hospital with contraception after institutional delivery. Thus, this study was planned to address this issue and report feasibility and acceptability of immediate PPIUCD insertion at a tertiary care center in Bihar.

### METHODOLOGY

#### Study design & duration

This hospital-based prospective longitudinal study was conducted from November 2019 to October 2020 at the Department of Obstetrics and Gynecology, Jawahar Lal Nehru Medical College & Hospital, Bhagalpur, India.

#### Study participants

All registered women who delivered by normal vaginal delivery within the study duration were eligible for inclusion in the study. Those with distorted uterine cavity, acute purulent discharge, malignant or benign trophoblastic diseases, chorioamnionitis, prolonged rupture of membrane, unresolved postpartum hemorrhage or tear during delivery were excluded.

#### Ethical issues

Ethical approval was obtained from the Institutional Ethics Committee. Duly signed informed consent forms were collected from each study participant.

#### Counselling of the patients

During ANC visits, during admission if not booked case. During early labor, on 1st post-partum day. Women who accepted PPIUCD were interviewed for their cause of acceptance and women who were reluctant for PPIUCD were interviewed for their reasons for rejection and their choice for other method of contraception. The proforma was prepared in form of questionnaire the information for acceptability and rejection were analyzed by the same.

#### Procedure

After the active management of 3rd stage of labor, bimanual

WHO medical eligibility criteria [4] state that PPIUCD is safe in

examination was performed. Written consent was taken from the women. All the required things were arranged in a tray. Cervix was visualized using speculum and retractor. IUCD pack was aseptically opened. Copper-T was held in right hand and slowly inserted through the cervix in to the lower uterine cavity, left hand was placed on top of a sterile sheet over the abdomen, Copper-T was slowly moved upward till the fundus of uterus. The hand over the fundus and copper-T are approximated and then IUCD was left at the fundus and the hand was slowly moved out, while stabilizing the uterus with outside hand. Strings were cut to the level of the cervix.

**Follow up**

Follow up was scheduled at 6 weeks or with any other complaint.

**Statistical analysis**

All the accumulated data was analyzed by the help of Social Package for Social Sciences by IBM (Ver 20). Simple descriptive statistics such as frequencies, proportions, and percentages were used to describe the demographic and other characteristics of participants.

**RESULTS**

180 eligible postpartum patients were counselled for PPIUCD insertion during their antenatal visits. Out of this, 68 patients accepted PPIUCD insertion with proper consent. Acceptance rate was 37.8%.

Majority of patients (84.7%) counselled were between age group of 20-29 years, of which 34.8% accepted PPIUCD insertion. Above 30 years, 60% refused IUCD insertion because they were inclined for accepting permanent method of contraception. 12.7% were illiterate of which one-third accepted PPIUCD. Out of rest 87.2% who were literate, 37.1% gave acceptance. Most of the patients were primigravida (47.8%), out of them 48% accepted PPIUCD. Only 27% of grand multipara accepted PPIUCD. (Table 1)

**Table 1: Distribution of study participants according to their sociodemographic characteristic and decision regarding insertion of PPIUCD**

Characteristic	Accepted	Declined	Total
<b>Age</b>			
< 19 years	2 (100%)	0	2 (0.1%)
20-29 years	53 (34.8%)	99 (65.2%)	152 (84.4%)
30-39 years	10 (40.0%)	15 (60.0%)	25 (13.9%)
40 years and above	0	1 (100%)	1 (0.01%)
<b>Education</b>			
Illiterate	6 (26.1%)	17 (73.9%)	23 (12.7%)
Up to 5 <sup>th</sup> grade	11 (35.5%)	20 (64.5%)	31 (17.2%)
5 <sup>th</sup> -8 <sup>th</sup> grade	11 (24.4%)	34 (75.6%)	45 (25.0%)
8 <sup>th</sup> -12 <sup>th</sup> grade	29 (42.6%)	39 (57.4%)	68 (37.8%)
Graduate	7 (53.8%)	6 (46.2%)	13 (7.2%)
<b>Parity</b>			
Primigravida	45 (52.3%)	41 (47.7%)	86 (47.8%)
Multigravida	38 (40.2%)	56 (59.8%)	94 (52.2%)

Table 2 shows the reasons of acceptance of PPIUCD. 28% as it was long acting followed by less follow up 20% and reversibility 17%. Table 3 shows reasons of declining usage of PPIUCD. 32% were inclined to use other form of contraception. 20% wanted to adopt permanent method and 10% had no reason for declining.

**Table 2: Reasons for accepting PPIUCD insertion (N = 68)**

Reason stated	Number (%)
Long acting	19 (27.9%)
Fewer follow up visits or medical assistance post insertion	13 (19.1%)
Reversible	12 (17.7%)
Safe	7 (10.3%)

Non-hormonal	7 (10.3%)
Less attention for the use	8 (11.8%)
No interference in breast feeding	2 (2.9%)

**Table 3: Reasons for not accepting PPIUCD insertion (N = 112)**

Reason	Number (%)
Inclination for other forms of contraception	36 (32.1%)
Opted for permanent method	22 (19.6%)
Unfelt need for contraception	16 (14.3%)
Fear of menstrual irregularity or pain	15 (13.4%)
Fear of future infertility	6 (5.3%)
Family pressure	10 (8.9%)
No reason	7 (6.2%)

71.6% of the women turned for follow up, out of which 53.2% had no complaints. 21.3% complained of spontaneous expulsion. Another 12% presented with the device at the cervical canal. 8% complained of pain and 6% had menstrual irregularities post insertion. No cases of uterine perforation noted or reported.

**DISCUSSION**

The present study was conducted to assess the acceptability, feasibility and complications of IUCD insertion in immediate postpartum period of women delivering in our setup. This study included 180 postpartum subjects. All participants after informed consent were included in the study and divided into two groups based on the acceptance or refusal for IUCD insertion. In present study, 68 (37.8%) women were willing for PPIUCD insertion. 112 (62.2%) women refused PPIUCD insertion. A study done by Mohamed et al. [5] shows that making contraceptive methods easy and convenient for women makes a big difference in ultimate acceptance. In their study, 1024 women were counselled for immediate postpartum insertion of IUCD. Of those who agreed for immediate insertion, 71.2% had the IUCD inserted. Compared to this study acceptance rate in our study is low, possible reasons could be lack of awareness, low education, family pressure and various misconceptions for IUCD insertion.

In this study maximum patient (37.8%) were educated up to 12th standard & 42.6% of them accepted PPIUCD. 12.7% were illiterate and 73.9% of them rejected the use of PPIUCD from this group. Women who were graduate, acceptance rate being 53.78%. Education has a positive effect on acceptance of PPIUCD insertion but various misconceptions overpowered the acceptance. Choudhary et al. found secondary and higher education influenced contraceptive use. [6] Ullah and Chakraborty showed women's education as the most important determinant of contraceptive use. [7]

In our study acceptance of the PPIUCD was lower among multiparous (40.2%) compared to primiparous (52.3%). Study done by Safwat et al. [8] in Egypt where 30% of primiparous accepted the use of PPIUCD compared to 15% of multipara. In our study majority of multipara patient were interested in permanent method of contraception & inclination of primiparous remains towards spacing methods. Advantages of immediate post-partum insertion include high motivation, assurance that the woman is not pregnant, and convenience Grimes D. [9]

In our study, 112 cases who refused for post-partum IUCD insertion were interviewed for cause of refusal and also their choice for other contraception. 32.1% were interested in using other type of contraception. This was consistent with the study of Rajni Gautam, K. N. Arya [10] However 19.6% were interested in permanent method of contraception at a later date. 14.3% did not accept any contraception. 13.4% had fear of menstrual problems like irregularities and pain. 5.3% had fear of future infertility. 8.9% patients refused accepting PPIUCD insertion under family pressure (the deciding factors

were husband and mother-in-law) and 6.2% could not specify the reason. Priya et al., [11] they explored the reasons behind low acceptance of PPIUCD. They found most common reason for low acceptance of PPIUCD is lack of involvement of husband.

In our study 71.6% reported for follow up, out of which 53.2% of cases were comfortable with PPIUCD, with no complaints. Rest 56.8% had few problems with the IUCD use. 21.3% presented with expelled IUCD, 12% presented with IUCD at Cervical canal among them reintroduction was done in most of the cases. Rest cases were not willing for reintroduction Tatum HJ et al. [12] found that the gross cumulative expulsion rate in their study was 16.2%. According to Bhalerao et al. [13] the expulsion rate was 16.4%. The high incidence was considered due to atrophic or bulky uteri present in some. Post insertion pain was there in 8%. Irregular bleeding was present in 6% patient. There was no case of perforation, PID, endometritis reported in our study. This was consistent with the study of Katheit G. [14] As per Kapp N, Curtis KM [15] there was no increase in risk of complications with PPIUCD insertion.

## CONCLUSION

Immediate postpartum IUCD insertion is safe, effective, low cost, long acting spacing method. It is concluded from our study that it is a feasible and acceptable method of contraception. The feasibility of accepting PPIUCD insertion can increase with antenatal counselling and institutional deliveries. Acceptance is high in primiparous patients where spacing method of contraception is of choice. Although PPIUCD has high expulsion rate, but looking into current increasing population of India, it is better to give this contraceptive option than leaving a post-partum woman on risk of another pregnancy with in short interval.

**Funding:** No external support

**Acknowledgment:** None

**Conflict of interest:** None declared by any of the authors

**Ethical issues:** All aspects were duly considered

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