



ACCEPTABILITY, RETENTION AND SATISFACTION OF POST-PLACENTAL INSERTION OF INTRAUTERINE CONTRACEPTIVE DEVICE: A DESCRIPTIVE STUDY

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ABSTRACT:

Background: PPIUCD has emerged as the best choice to avoid the missed opportunity of contraceptive practices in a population that is in dire need of family planning as the intrauterine contraceptives have defied apathy, unjustified judgment, negative publicity, and apathy once more to emerge as a safe and effective form of birthcontrol. Preventing conception with an IUCD is one of the oldest techniques of contraception.

Objective: To determine the frequency of acceptability, retention and satisfaction of immediate insertion of post-placental intrauterine contraceptive device

Material & Methods

Study Design: Descriptive case series

Setting: Unit I, Department of Obstetrics & Gynecology, Central Park Teaching hospital, Lahore

Duration: 06 months i.e. 26-12-2022 to 26-6-2023

Data collection: 300 females were enrolled after delivery and informed consent was taken for placement of PPIUCD. CuT 380A was placed and acceptability was noted. Then all females were followed up in OPD and after 6 months of insertion, they were called for assessment of PPIUCD presence. If PPIUCD was in its correct position, then retention was labeled.

Results: The average age of the females was 29.43 ± 6.55 years, 63(21%) were nulliparous. The acceptability of PPIUCD was noted in 70(23.33%); efficacy in 67(95.7%), and satisfaction was observed in 65 (92.9%) participants.

Conclusion: According to this study acceptability of PPIUD was observed in almost one-fourth of the females. PPIUD is efficacious and proven to have high satisfaction among females.

Keywords: Post-partum Intrauterine Device, Efficacy, Acceptability

INTRODUCTION:

Birth spacing is an ideal way to plan for a family to provide the time needed for the restoration of mothers' health and rearing of the current child in a good manner along with reducing psychological and health burden on families as well as societies. IUCD is one of the earliest techniques of contraception for birth spacing. The current IUCD is a very effective, safe, discreet, long-acting, coitus-independent, and quickly reversible contraceptive method with fewer side effects.¹ The postpartum period is a critical time to assess a patient's contraceptive needs. Within two years after giving birth, approximately two-thirds of patients in 21 countries report an unmet need for family planning.² National guidelines recommend IUCD installation for nursing and non-breastfeeding women, whether immediate (within 10 minutes after delivery) or early postpartum (after 10 minutes, but within one month of delivery). Postpartum placement necessitates the acquisition of additional abilities that are simple to learn. Finally, employing a team-based approach, an effective postpartum IUCD insertion program can be implemented in hospitals.³

One study found that out of 379 females, 26.39% of females had acceptability of PPIUCD, while efficacy was achieved in 43% of cases and 63% were satisfied with PPIUCD insertion soon after delivery.⁴ Nayak and Jain found that the acceptance rate of PPICUD was 25.32%, while efficacy was achieved in 85.3% of cases and 72.1% were satisfied with PPIUCD insertion soon after delivery.⁵

The rationale of this study was to determine the frequency of acceptability, retention and satisfaction of immediate insertion of PPIUCD in our population as there was no local study found in the literature that could help us to find the acceptability rate of PPIUCD in local population. So this study is conducted for confirmation of the rate of acceptability and satisfaction among females presenting for delivery. So that we can implement the results of this study in local setting and can plan strategies to counsel the females in earlier during antenatal visits to make their mind for PPIUCD and help them in birth spacing.

OBJECTIVE:

To determine the frequency of acceptability, efficacy and satisfaction of immediate insertion of post-placental intrauterine contraceptive device

MATERIAL AND METHODS:

Study Design: Descriptive case series study

Setting: Unit I, Department of Obstetrics & Gynecology, Central Park Teaching Hospital Lahore.

Duration of Study: Six months i.e. 26-12-2022 to 26-6-2023

Sample Size: A sample size of 300 females was calculated with 95% confidence level, 7% margin of error and taking expected percentage of acceptability of PPIUCD i.e. 26.39% in laboring females.⁴

Sampling Technique: Non-probability, consecutive sampling

Selection Criteria:

Inclusion Criteria: Females of age 18-40 years, parity >1, presenting at gestational age >37 weeks in active labour were enrolled in the study

Exclusion Criteria: Females with chronic or gestational diabetes, hypertension, anemia, fibroid uterus, bleeding disorder, pelvic infection or puerperal sepsis, premature rupture of membranes, postpartum hemorrhage or extensive genital trauma during delivery were excluded.

Data Collection Procedure: 300 females were included and informed consent was obtained. Demographic details were noted. Before undergoing delivery, females were counseled to have IUCD placement soon after delivery of the fetus and placenta. Then all females undergo delivery through cesarean section under spinal anesthesia or spontaneous vaginal delivery. After delivery, females were asked again for placement of PPIUCD. If a female agreed to place PPIUCD within 15 minutes of delivery, then it was proceeded by the researcher. CuT 380A was placed in all females and acceptability was noted. Then females were shifted to post-delivery wards and were discharged from there. All females were followed up in OPD and were counseled to report in case of missing thread or missing PPIUCD. After 6 months of PPIUCD, females were called in OPD for assessment of PPIUCD presence. If PPIUCD was in its correct position and do not lose strings or expulsion during 6 months (on vaginal examination) and continued with IUCD, then it was labeled as effectively retained. Then all females were asked for satisfaction with PPIUCD. If the female was satisfied with PPIUCD and did not complain of any bleeding or spotting, any abnormal bleeding, problem in menstrual flow, pregnancy, lower abdominal pain, uncomfortable feeling, or pelvic infection during 6 months. And she intends to continue it. All this information was recorded on proforma. All data was entered and analyzed through SPSS version 21.

RESULTS:

The mean age of the patients was 29.43 ± 6.55 years. The mean gestational age was 39.59 ± 1.07 weeks. Out of 300 females, 64 (21.33%) were gravida 1, 46 (15.33%) were gravida 2, 62 (20.67%) females were gravida 3, 69 (23%) females were gravida 4 and 59 (19.67%) females were gravida 5. In this study there were 63 (21%) females were primiparous, 81 (27%) females had parity 1, 47 (15.67%) females had parity 2 & 3 respectively, 40 (13.33%) females had parity 4 and 22 (7.33%) females had parity 5. The abortion was noted in 155 (51.7%) females. The mean BMI of the patients was $26.35 \pm 4.24 \text{ kg/m}^2$. In this study 186 (62%) females were illiterate, 50 (16.67%) females had matriculation education, 30 (10%) females had inter and 34 (11.33%) females had graduate or above educational status. CS mode of delivery was noted in 148 (49.3%) females whereas NVD was noted in 152 (50.7%) females. **Table 1**

The acceptability of PPIUCD was noted in 70 (23.33%) females. Out of 70 females the effective retention of PPIUCD was noted in 67 (95.7%) patients and satisfaction was observed in 65 (92.9%) patients. **Table 2**

TABLE 1 Demographics of females

Feature	Mean \pm S, f (%)
N	300
Age (years)	29.43 ± 6.55
Gestational Age (weeks)	39.59 ± 1.07
Gravidity	
1	64 (21.3%)
2	46 (15.3%)
3	62 (20.7%)
4	69 (23.0%)
5	59 (19.7%)
Parity	
0	63 (21.0%)
1	81 (27%)

2	47 (15.7%)
3	47 (15.7%)
4	40 (13.3%)
5	22 (7.3%)
Abortion	
Yes	155 (51.7%)
No	145 (48.3%)
BMI (Kg/m ²)	26.35 ± 4.24
Education	
Illiterate	186 (62.0%)
Matric	50 (16.7%)
Intermediate	30 (10%)
Graduate	34 (11.3%)
Mode of delivery	
Cesarean section	148 (49.3%)
Normal vaginal delivery	152 (50.7%)

TABLE 2 Acceptability, effective retention and satisfaction of females for PPIUCD

		Frequency	Percent
Acceptability	Yes	70	23.3%
	No	230	76.7%
	Total	300	100%
Retention	Yes	67	95.7%
	No	3	4.3%
	Total	70	100%
Satisfaction	Yes	65	92.9%
	No	5	7.1%
	Total	70	100%

DISCUSSION:

Because it has no detrimental effects on lactation and may even prolong its duration in some women, the IUCD is considered one of the most dependable, affordable, non- hormonal, and reversible contraceptive techniques acceptable for a lactating mother. It also has no influence on the quality of breast-milk. ^{6,7} PPIUCD is now widely accepted as a safe and effective method of contraception, with multiple benefits including ease of insertion, low adverse effects on breastfeeding, cost-effectiveness, relief from overcrowding in outpatient clinics, and protection against undesired pregnancy and abortion. ⁸

The acceptability of PPIUCD was noted in 70 (23.33 percent) females in our study. Similarly, 67 (95.7 percent) patients reported efficacy and 65 (92.9 percent) reported satisfaction with PPIUCD. Mishra found that the PPIUCD (Inserting CuT 380 A by 10 minutes after placental delivery) was indisputably safe, effective, and had a high retention rate in their research. The ejection rate was not particularly high, and with practice, it can be reduced. Given the high level of approval despite low awareness, the government should develop initiatives to raise public understanding of the PPIUCD through various media outlets. ¹

The continuation rate of post placental IUCD was 87.3 percent in Gupta et al., trial, whereas the interval insertion rate was 92 percent. ⁹ Celen et al., discovered that the continuing rate of early post-

partum IUCD implantation was 87.6%.¹⁰ According to Sevket al., the continuation rate of IUCD was 81.6 percent after 6 months and 62 percent after a year.¹¹

According to Katheit et al., and Gupta A et al., conducted Indian studies that reported acceptance rates of 18.8% and 14.4%, respectively, and efficacy rates of 89.5 percent and 95.7 percent. Because PPIUCD is a novel concept in India, acceptability is minimal.¹²

⁹ Safat et al., published a study in Egypt that found 28.9% acceptance ⁶ Following immediate PPIUCD insertion, Drey et al., reported a satisfaction rate of 93.8 percent.¹⁶

Gupta et al conducted a study which shows acceptance rate of 60% and retention rate of 65.6% for PPIUCD after 6 months of follow up¹³. The study conducted at tertiary care center, Patiala showed retention rate of 86.6%¹⁴. Shobha N. Gudi et al conducted a prospective multicenter study which shows acceptance rate of 36% and retention rate of 90%¹⁵. A Meta-Analysis of Postpartum Copper IUD Continuation Rates in Low- and Middle-Income Countries by Angela Marchin et al shows a 6 months continuation rate of 87%¹⁶. According to the study conducted by Neelam et al, acceptance rate was 36.2% and efficacy was 100%¹⁷.

Mohamed et al., conducted a study on postpartum intrauterine contraceptive device acceptability: Assiut experience. According to the author, out of 3,541 clients, 1,024 (28.9%) agreed to utilize IUCD following delivery. During antenatal and postpartum counselling, acceptance was roughly the same: 26.4 and 31.8 percent, respectively. Women with a formal education had higher verbal acceptance than women who were uneducated.¹⁸

When compared to protracted insertion, Jain and Akhtar found that immediate postpartum IUCD has a higher acceptance, continuance, and satisfaction profile. 386 individuals were counselled for immediate PPIUCD insertion, with 34.2 percent agreeing to have it done, but only 24.3 percent actually having it done. A total of 337 individuals were counselled for extended IUCD insertion, with 61.1 percent accepting but only 16.5 percent actually having it done.¹⁹

PPIUCD is the once-in-a-lifetime opportunity. It allows women who are already in the medical system to get safe, long-acting, and extremely effective contraception. More research is needed in the literature on the timing of PPIUCD implantation counselling during the prenatal and postnatal periods, as this can influence women's decision to avoid unwanted pregnancy.²⁰

CONCLUSION:

According to this study acceptability of PPIUD was observed in almost one fourth of the females. PPIUD is efficacious and proved high satisfaction among females.

Recommendations:

There should be public awareness programs at government/mass level and in hospitals during antenatal period and at the time of admission to increase the awareness in masses regarding effectiveness and need of postpartum IUCD insertion to make the best use of resources and have a controlled population for the prosperity of country.

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