ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,S Iss 3, Dec 2022

A Comparative Evaluation Of Acceptance And Expulsion Of IUCD Insertion

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ABSTRACT

Background: One of the most delicate times in a woman's life is the postpartum period, when she interacts with medical facilities and both the mother and the newborn require special care. To prevent unwanted pregnancies and promote optimal interpregnancy intervals, effective contraception should be discussed and offered at that time. During the postpartum period, inserting an intrauterine device (IUD) via various methods may raise the risk of problems.

Aim and Objective: The present study was aimed to evaluate acceptance and expulsion of IUCD insertion.

Methodology: This prospective observational study was carried out at the Santosh Medical College and Hospital in Ghaziabad between September 2015 and August 2017 over a two-year period. IUCD insertions totaling 265 were performed. Out of this, 125 cases (post placental and intra caesarean) and 140 interval insertions were postpartum.

Result: The majority of cases that accepted PPIUCD (56.7%) and those in the Interval (41.6%) belonged to the age range of 26 to 30 years. According to the modified Kuppuswami classification, the majority of the study's participants—PPIUCD (66.7%) and Interval (48.8%)—belonged to the lower middle class. IUCD insertions were performed more frequently in multiparous women in both groups. 75% women in PPIUCD group and 80% in

ISSN PRINT 2319 1775 Online 2320 7876

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Interval group were satisfied with IUCD. So, satisfaction rate was quite good in both groups.Twenty cases in PPIUCD group and 16 cases in Interval group got IUCD removed.

Conclusion: Satisfaction rate was quite good in both groups. While twenty cases in PPIUCD group and 16 cases in Interval group got IUCD removed.

Keywords: IUCD, intrauterine device, Postpartum, Multiparous, Obstetrics and Gynaecology.

INTRODUCTION

The intrauterine contraceptive device (IUCD) is a low-cost, highly effective (99%), reversible form of family planning that provides 5–10 years of pregnancy prevention and requires minimal user effort once placed. More than any other approach, increased IUCD use has the potential to lower the overall number of unplanned pregnancies.

Immediate postpartum IUCD service became a Government of India approved program in 2010 [1]. Under the new program being implemented by the Government of India in some states in collaboration with Jhpiego, pregnant women are counselled for the use of IUCDs during antenatal period itself and the IUCD is inserted soon after the woman delivers the baby, following proper consent [2] . Delaying insertions until later is less effective because most clients tend not to return to facilities for FP services[3].

Cost is not a barrier for women because FP services in India, including PPIUCDs, are provided free of charge at government health facilities.

Postpartum IUD insertion, however, may increase the risk of adverse events affecting safety (e.g. perforation, pain, bleeding) as well as effectiveness (i.e. expulsion). Whether postpartum IUD insertion increases the risk of expulsion or perforation has been of particular concern to researchers and clinicians. In earlier studies differences in the expulsion rates were related to the time of insertion, type of IUD used, technique of insertion and skill & experience of the service providers [4]. Since then various advancements have been tried to decrease expulsion rates and improve PPIUCD acceptance.

According to a 2010 Cochrane review, PPIUCD is a safe and effective contraceptive method [5]. New understanding of this postpartum contraception necessitates examination of advantages and disadvantages of PPIUCD from a new perspective.

The present study is planned to evaluate the safety and efficacy of insertion of immediate postpartum IUD in women delivering vaginally or by caesarean section and to compare it with interval insertion in our institution.

MATERIALS AND METHODS

The current study was carried out at Santosh Medical College and Hospital in Ghaziabad's Obstetrics and Gynecology Department. It was a two-year, prospective observational study that took place between September 2015 and August 2017.

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Following counseling, a total of 265 women in the reproductive age range were included in the study. Three categories were used to divide the study participants:

- Group 1(Study Group)- Postpartum insertion (following normal vaginal delivery and intra-caesarean) - 125 cases
- Group 2(Control Group)- Interval insertion - 140 cases

Using Kelly's placental forceps and all aseptic precautions in accordance with the recommendations of USAID, the Ministry of Health and Family Welfare, and the Government of India in 2010 [6], Cu 375 was inserted in the study group within 10 minutes of the placenta's expulsion during a routine vaginal delivery. Cu 375 was manually inserted intracaesarean at the fundus, and the IUD thread was left in the lower uterine section without being trimmed. After giving birth, all postpartum women were monitored for six hours before being reexamined and released from the hospital.

In the control group, Cu 375 was injected using the traditional "no touch" withdrawal approach between the fourth and seventh days of the menstrual cycle, taking full aseptic precautions.

Women in the PPIUCD group were informed about follow-up appointments at 6 weeks, 3 months, and 6 months or earlier if they experienced any cautionary symptoms, such as offensive-smelling lochia, heavy bleeding, lower abdomen pain, fever, or expulsion. For follow-up, women in the control group were contacted after their next period, at three months, and at six months.

Percentages are used to characterize the observations. Clinical results were compared between the two groups. To find variations in the prevalence rate of clinical outcomes, the Student T test was performed, and $P < 0.05$ was regarded as statistically significant. Statistical analysis was performed on the data using SPSS.

RESULTS

There were 265 IUCD insertions in all. 140 of them were interval insertions, and 125 of them involved postpartum (post placental and intra caesarean). 15 women in the Interval group and 5 in the PPIUCD group were lost to follow-up. For the 245 cases that finished the research, additional analysis was conducted.

Table1: Socio-demographic data distribution of IUCD.

Socio-demographic data distribution		Number (Percentage)	
		PPIUCD (n=120)	INTERVAL (n=125)
Age (In Years)	Up to25	68 (56.7%)	35 (28%)
	26-30	40 (33.3%)	52 (41.6%)

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	31-35	11 (9.2%)	26 (20.8%)
	36-40	1 (0.8%)	9 (7.2%)
	41&above	0 (0%)	3 (2.4%)
Socio-Economic Status of Women	Lower	4 (3.3%)	7 (5.6%)
	Upper Lower	31 (25.8%)	6 (4.8%)
	Lower Middle	80 (66.7%)	61 (48.8%)
	Upper Middle	5 (4.2%)	9 (7.2%)
Parity	P1	43 (35.8%)	30 (24%)
	P2-P4	77 (64.2%)	73 (58.4%)
	>P4	0 (0%)	22 (17.6%)

According to Table 1, the majority of cases that accepted PPIUCD belonged to the age group of up to 25 years (56.7%), and those in the interval belonged to the age group of 26 to 30 years (41.6%). According to the modified Kuppuswami classification, the majority of the study's participants—PPIUCD (66.7%) and Interval (48.8%)—belonged to the lower middle class. IUCD insertions were performed more frequently in multiparous women in both groups. In the PPIUCD group, 64.2% of women and in the Interval group, 58.4% of women were multiparous.

Table2: Follow ups and type of follow up after IUCD insertion.

		Number (Percentage)	
		PPIUCD(n=120)	**INTERVAL(n=125)**
Follow Up	Up to6 Weeks	50 (41.6%)	41 (32.8%)
	6Weeks Or after	21 (17.5%)	12 (9.6%)
	3Months	12 (10%)	22 (17.6%)
	6Months Or More	45 (37.5%)	55 (44%)
Type Of Follow Up	Clinic Visit	91 (75.8%)	89 (71.2%)
	Telephonic	29 (24.2%)	36 (28.8%)

Out of the 265 women that were recruited, 245 arrived for follow-up, according to Table 2. The majority of the women (41.6%) in the PPIUCD group visited for follow-up up to six weeks. The majority of women from the Interval group (44%) visited for follow-up at and after six months. For follow-up, the majority of women in both study groups (PPIUCD-75.8% and Interval-71.2%) visited OPD clinics.

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Table 3: Acceptance and Removal rate of IUCD.

	Number (Percentage)	
	PPIUCD (n=120)	**INTERVAL(n=125)**
Patients Satisfied	90 (75%)	100 (80%)
IUCD Removed	20 (16.6%)	16 (12.8%)

As shown in Table 3, 75% women in PPIUCD group and 80% in Interval group were satisfied with IUCD. About 20 cases in PPIUCD group and 16 cases in Interval got IUCD removed.

Table 4: Causes of Removal of IUCD.

Causesofremoval	**Number (Percentage)**	
	PPIUCD (n=120)	**INTERVAL (n=125)**
Socialcauses	1 (5%)	2 (12.5%)
Bleeding	7 (35%)	2 (12.5%)
Missingstrings	3 (15%)	1 (6.25%)
Dischargep/v	4 (20%)	2 (12.5%)
Pain	3 (15%)	2 (12.5%)
For conception	1 (5%)	5 (31.25%)
Other methods	1 (5%)	2 (12.5%)

According to Table 4, Most common cause of removal of IUCD among women using PPIUCD was bleeding (35%) and among those using Interval IUCD was desiring conception (31.25%).

DISCUSSION

A total of 265 IUCD insertions were performed for our investigation. Out of these, 125 cases (postplacental and intracaesarean) and 140 interval insertions were postpartum. 15 ladies in the Interval group (10.7%) and 5 in the PPIUCD group (4%) were unreachable. On the 245 cases that finished the trial (with a follow-up rate of 92.4%), additional analysis was conducted. In their multicentric study of 2,733 women conducted in India, Kumar et al. reported a follow-up rate of 63.3%51, which was low compared to our study.

In the current study, the Interval group's majority of women (41.6%) belonged to the 26–30 age range, with a mean age of 28.7± 4.91 years. The average age of the ladies in this study was 27.2 ± 4.54. The majority of cases that accepted PPIUCD (56.7%) belonged to the age range of 18 to 25 years; in the current investigation, the mean age was 25.7 ± 3.51 years. The

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age range of 21 to 30 years showed the highest acceptance of PPIUCD in studies by Sharma et al., [7]and Sonali et al., [8] (82.96% & 64.6%, respectively).

Similar findings were found in other research as well. For example, Xu et alstudy [9] .'s found that the mean age of women in the postplacental copper T insertion group was 24.5 years. 23.12±2.42 years and 24.7 years, respectively, were used in the studies by Celen et al.,[10] and Singal S et al.,[11]. They were all quite young people. Additionally, it implies that younger women are more amenable to counseling when seeking an effective method of contraception after giving birth.

In the PPIUCD group, the majority of the women who attended for follow-up came up to six weeks (41.6%). A total of 44% of the women in the Interval group received follow-up at and after six months. 245 of the 265 recruited women came just for the follow-up. For follow-up, the majority of women in both study groups (PPIUCD-75.8% and Interval-71.2%) visited OPD clinics. Telephone interviews were used to follow up with the remaining ladies.

According to the modified Kuppuswami classification, the majority of the patients in the current study belonged to the lower middle class: PPIUCD (66.7%) and Interval (48.8%). The acceptability of PPIUCD was 55.67% in the study by Sharma et al., [7] and 52% in the study by Sonali et al., [8].

IUCD was well-liked by 75% of women in the PPIUCD group and 80% of women in the Interval group. This demonstrates that women's happiness levels are unaffected by the mode of implantation. Satisfaction percentages were 90% (PPIUCD group) and 92%, per a study by Gupta et al. [12] (Interval group). In a research by Mohan H et al., [13] rates for the PPIUCD group and Interval group were 88% and 84%, respectively. About 20 cases (16.6%) in the PPIUCD group and 16 cases (12.8%) in the Interval group had their IUCD removed.

In the present study mostly multiparous women got Interval IUCD insertions (58.4%). It may be related to the awareness that family size should be limited or spacing should be done. In the present study 64.2% multiparous women accepted PPIUCD. A study by Sonali et al.,[8] also showed maximum acceptance of PPIUCD in multiparas (74.27%) and another study by Sharma et al.,[7] also reported a higher acceptance rate among multipara (69.59%) and those who had a desire for future pregnancy after an interval of more than 2 years (75.64%). On the contrary, study by Kanhere AV et al.,[14] have shown higher incidence of primiparous women accepting PPIUCD than multiparous women (48% vs 27%).

CONCLUSION

Thus, irrespective of the mode of delivery, it was determined from the current study that postpartum insertion of Cu 375 is an efficient, secure, practical, affordable, and long-term means of postpartum contraception.

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