

# Assessment of Awareness, Acceptance and Continuation Rate of Immediate Postpartum Insertion of Intrauterine Contraceptive Device

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## Abstract

**Background:** With increasing rate of institutional deliveries, PPIUCD serves as an effective method of contraception that can be easily availed to the parturient at the health care facility. **Objective:** The present study evaluates the awareness and acceptance rates of PPIUCD among parturient at the time of delivery in both vaginal delivery and caesarean section. The continuation rate was also assessed at the first postpartum visit that is at 6 weeks. **Method:** This prospective interventional study was conducted in the Department of Obstetrics and Gynecology, Kamla Raja Hospital, Gwalior for a period of one year from Nov 2014 to Nov 2015. 100 cases of normal vaginal delivery and 100 cases of lower segment caesarean section were randomly selected and CuT 380A was inserted after obtaining their written consent. **Result:** Mean age of the study sample was 27.5 years  $\pm$  3.5 years. The acceptance rate was higher when the counselling was done in early labor (61.5%). It was higher in primigravida (53%) than multigravida (47%). Its long term effect is the commonest reason for accepting this method. Most common complication that resulted in removal of PPIUCD was excessive bleeding per vaginum in vaginal delivery and pain in lower abdomen in caesarean section. Spontaneous expulsion of the device was noted in 3% of vaginal insertions and none in the cesarean insertion. **Conclusion:** PPIUCD is an excellent long term contraceptive method to limit or space child births offered to a woman in a setting when she is highly motivated and genuinely needs it.

**Keywords:** PPIUCD, contraception, insertion of IUCD, post placental.

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## INTRODUCTION

The government schemes like JSY and NRHM has resulted in increased number of institutional deliveries. It has provided the health care provider an excellent opportunity to offer quality family planning services to the postpartum women.

In the first postpartum year only 26% of women are using any method of family planning and therefore postpartum family planning methods can help in healthy spacing of pregnancy [1]. Fear of complications and lack of information are the common problems for unmet need [2].

The choice of contraception through “Cafeteria Approach” plays a salient role in fertility control, particularly for the lactating women [3]. Antenatal period is the ideal time to discuss contraception with cafeteria approach [4]. In a country like ours where delivery might be the only time where women comes in contact with a healthcare personnel, PPIUCD is an appropriate contraception tool. Also the women when

counselled and motivated during antenatal period easily consents for PPIUCD because of the ease of insertion, cost effectiveness, long term and reversible effect. It also reduces unintended pregnancies possible in the postpartum period.

The present study focuses on the assessment of awareness and acceptance of PPIUCD in normal vaginal delivery and intra-caesarean in women who were counselled for PPIUCD. The reasons for discontinuation were assessed and the continuation rate measures the efficacy of the method.

## MATERIALS AND METHODS

This study was carried out in the department of OBGY, KRH Gwalior after ethical committee permission. 100 cases of normal vaginal delivery (grp 1) and 100 cases of caesarean section (grp 2) who consented for PPIUCD were inserted CuT 380A within 10 min of delivery of placenta manually or using Kellys forceps in group 1 and manually at the fundus in group 2. The women having obstructed labour, manual

removal of placenta, unresolved post partum haemorrhage, chorioamnionitis, premature rupture of membrane (PROM) > 18 hours, extensive genital trauma, any uterine abnormalities and congenital anomalies, fever during or after labour (temperature >38°C), allergic to copper, Wilson's and any haemorrhagic diseases, undiagnosed abnormal uterine bleeding and any pelvic inflammatory diseases were excluded from the study.

Prior to discharge post insertion counseling and advice was given to each woman. Discharge Card showing type of IUCD and date of insertion were given.

All participants were called for follow up at 6 & 12 weeks. Various demographic factors were assessed. Acceptance of PPIUCD based on their counselling period, reasons for discontinuation and complications at follow up visits were noted.

## RESULTS & ANALYSIS

The mean age of the study sample was 27.5 years  $\pm$  3.5 years with a range of 24 to 31 years. The maximum no. of PPIUCD were accepted by the age group of 20-29 years.

**Table-1: Demographic distribution**

Parameter		Frequency	Percentage
Age	< 19 years	7	3.5
	20-29 years	117	58.5
	>30 years	76	38
Parity	Primiparous	106	53
	Multiparous	94	47
Period of counselling	Antenatal	36	18
	During early labor	123	61.5
	Immediate postpartum	41	20.5

**Table-2: Period of counselling and acceptance of PPIUCD**

Period of counselling	Age			Parity	
	<19 yrs	20-29yrs	>30yrs	primiparous	multiparous
Antenatal	2(1%)	26(13%)	8(4%)	12(6%)	24(12%)
Early labour	3(1.5%)	78(39%)	42(21%)	45(22.5%)	78(39%)
Immediate postpartum	2(1%)	13(6.5%)	26(13%)	5(2.5%)	36(18%)
Total (n=200)	7(3.5%)	117(58.5%)	76(38%)	62(31%)	138(69%)

The insertion of PPIUCD was maximum in the age group of 20-29 years (58.5%). The acceptance was highest when counselling was done in early labour in all the age groups. It was also observed that multiparous women (69%) accepted PPIUCD more than primiparous (38%) here also the acceptance was higher when counselling was done in early labour.

Table-3 shows that removal of PPIUCD was more in vaginal delivery than intra-caesarean group. The most common complication that led to removal was menorrhagia in vaginal delivery and pain in lower abdomen in caesarean section. Spontaneous expulsion was seen more in vaginal delivery than caesarean section.

**Table-3: Reasons for removal of PPIUCD at follow up visits**

	Vaginal delivery	Caesarean section
Spontaneous expulsion	3	0
Pain in lower abdomen	3	8
Menorrhagia	8	4
Discharge per vagina	7	1
Misplaced IUCD	5	3
Coiled up thread	1	4
Total	27	20

**Table-4: Reasons for acceptance of PPIUCD**

Long term	110(55%)
Reversible	24(12%)
Safe	46(23%)
Convenient	38(19%)
Non hormonal	16(8%)

This table shows in more than half (55%) of the women who accepted PPIUCD were the reason was its long term effect.

## DISCUSSION

The efficacy and high satisfaction in pregnancy prevention with PPIUCD has suppressed other daily and scheduled methods of contraception [5]. To increase the compliance of the method it is important to counsel the couple together in the antenatal period so that they are aware of the choices available and family planning method is adapted in the immediate postpartum period [6]. In a WHO report released in 2010, on unmet need for family planning, one of the common reasons for non-use of contraception included lack of awareness. Antenatal period is the ideal time for counselling [4]. In the present study 18% cases were counseled during antenatal period, 62.5% during early labor and 20.5% in the immediate postpartum period. Significant number of cases were counselled during hospital stay.

Majority of the participants belonged to age group 20-29years (58.5%). Similar result was observed in a study where use of intrauterine device was found to be highest among the women aged 25 to 34 years and lowest among the aged 15 to 24 years [7]. Primiparous women (53%) were convinced more for PPIUCD than multiparous(47%). This is in accordance with studies by Sahaja Kittur, Y. M. Kabadi 2012 [8] (70.47% vs 29.53%), Maluchuru *et al.*, [9] (73.17% vs 26.83%), Kumar *et al.*, [10] (53% vs 47%). The reason for acceptance being its long term effect, no side effects with breast feeding and immediate reversal of fertility on removal of the device. Multiparous women accepted this as a temporary method while waiting for permanent sterilisation.

In the present study it was noted that complications at the follow up visit were more in vaginal delivery group (27%) than caesarean section group (20%) that led to removal of PPIUCD. The cumulative expulsion rate in other studies were 16.2 & 16.4% [11, 12]. The continuation rate observed in our study was 76.5%. No serious complications were noted during this study. Pain in abdomen was more in post caesarean period while menorrhagia was the common complaint after vaginal delivery. 12(6%) cases had menorrhagia that didn't respond to treatment and CuT had to be removed in them. Menorrhagia was reported as a complication in maximum no. of cases in the study by Maluchuru *et al.*, [9] (11.5%). No cases of perforation or pregnancy reported during the study. Absence of uterine perforation and low incidence of infection are strong indicators of safety.

In the present study majority (55%) accepted PPIUCD as a contraceptive method due to its long term effect. 23% mentioned its safety as the reason for acceptance and 19% as it is a convenient method

(insertion in the same sitting and requiring less follow up visits. Study by Maluchuru *et al.*, [9] revealed that the long term effect>safety> convenient> reversibility were the common reasons for its acceptance.

## CONCLUSION

PPIUCD has distinct advantages. It is free from systemic side effects and does not affect breast feeding as seen with hormonal methods. It is a reversible method. It is a long term method. PPIUCD does not require regular user- compliance. It is also not coital dependent and there is no pain on insertion when used post placentally. Hence it proves to be a cost effective family planning method. Proper counselling in the antenatal period can increase its usage.

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