

Post-partum intrauterine contraceptive device practices, its acceptance and outcome in a tertiary care hospital: A record based study

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Abstract

Background: Only 26% of women are using any method of family planning in the first year postpartum. Studies indicate that unmet need for family planning in the postpartum period is 65% (USAID ACCESS 2009). Recent studies estimate that prevention of unplanned and unwanted pregnancies could help avert 20 – 35% of maternal deaths and as many as 20% of infant deaths. Use of temporary contraceptives in our country is limited to 10.2% and that of intrauterine contraceptive device (IUCD) is only 1.8%. Post-Partum IUCD (PPIUCD) was thus introduced in the National Family Planning Programme, India in 2009-10.

Methods: This is a Retrospective study conducted in the department of obstetrics and Gynaecology, Mandya Institute of Medical Sciences, Mandya. All deliveries during the time period from April 2018 to March 2021 were included in the study. Women accepting PPIUCD were analysed with respect to age, parity, educational status, complaints (during the follow up visits) and timing of insertion.

Results: Out of total 31,212 deliveries between April 2018 to March 2021, 19,662 were delivered vaginally, 11,550 delivered by C section. 702 (2.24%) accepted PPIUCD as a method of contraception. Intra cesarean insertion were 567 cases, Post placental insertion were 108 cases and immediate postpartum insertion 27 cases. 54% of users were of age group 20 - 25yrs, 53.8% were Primipara. Most common complication reported was bleeding PV in about 5.9% and 6.4% discontinued PPIUCD due to sexual interference [2.99%] as the commonest reason.

Conclusion: Less acceptance of PPIUCD services in our hospital reminds us to optimize PPIUCD services by counseling pregnant women right from ANC visits. Education and counseling can play a major role in acceptance and IUCD continuation rate. Obstetricians and nursing staff should play a major role to dispel myths and misconceptions prevalent with IUCDs.

Keywords: PPIUCD, Family Planning, Intra-Cesarean

Introduction

With current population growth rate in India being 1% ^[1], India's population as of 20 February 2022 is estimated to be 1,402,629,173. ^[2]. the necessity for population control through the use of contraception methods is urgent. Studies indicate that unmet need for family planning in postpartum period is as 65% ^[3] (USAID ACCCESS 2009). Only 26% of women are using any method of family planning in the first year postpartum ^[4]. According to 2005-2006 National Family Health Survey, 61% of births in India were spaced less than three years, the use of temporary contraceptives in our country is limited to 10.2% and that of Intrauterine Contraceptive Device [IUCD] is only 1.8% ^[4].

India accounts for almost 16% of the world's maternal deaths (2017 World Health Statistics). Studies also show that abortions account for 8% of total maternal mortalities Almost 30% of these deaths can be prevented by increasing access to family planning methods. Further 10% of child mortality can be prevented if couples spaced their pregnancies more than 2 years apart ^[4].

Use of contraception prevents pregnancy-related health risks for women, especially for adolescent girls, and when births are separated by less than two years, the infant mortality rate is 45% higher than it is when births are 2-3 years apart and 60% higher than it is when births are four or more years apart ^[5]. Post-Partum Intrauterine Contraceptive Device [PPIUCD] was thus introduced in the National Family Planning Programme in 2009-10.

The Postpartum intrauterine contraceptive device is long acting, reversible contraceptive method. The PPIUCD is highly effective, safe, long acting and reversible method of contraception with very few side effects. Globally, IUCD is the second most popular contraceptive method after female sterilization accounting for 13.72% of modern contraceptive prevalence rate ^[4]. Ensuring healthy timing and spacing of pregnancies is now considered the most important intervention for reproductive, maternal, neonatal, child and adolescent health (RMNCH+A) ^[6].

Because the majority of deliveries are now being institutionalized through programmers like Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakrama (JSSK), women have direct interaction with health-care workers and PPIUCD insertion is both easy and cost-effective and it can be easily integrated into existing healthcare infrastructure.

It also contributes to number of non-health benefits, including increased educational opportunities and empowerment for women, as well as country-wide population expansion and economic development.

Aims and Objectives

- To analyses PPIUCD practices in our hospital.
- To assess the acceptance rates and complications due to PPIUCD.

Methodology

This is a Retrospective study conducted in department of obstetrics and Gynaecology, Mandya institute of medical sciences, Mandya. All Deliveries during time period from April 2018 to March 2021 were included in the study. Women accepting PPIUCD were analysed with respect to age, parity, educational status, complaints (during the follow up visits) and timing of insertion.

Inclusion criteria

Women who accepted PPIUCD after delivery (vaginally or by cesarean) were included in the study.

Exclusion criteria

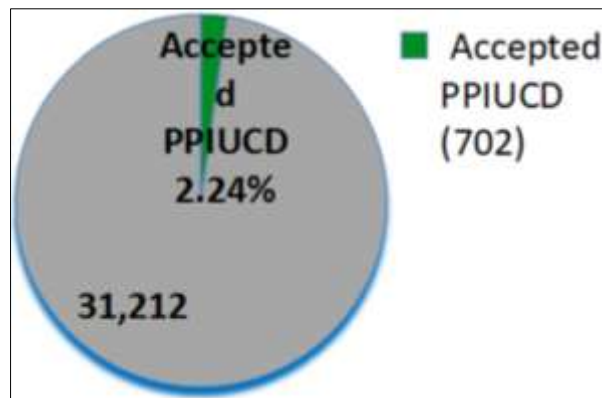
- Women who had fever, chorioamnionitis, prolonged leaking (>18hrs), uterine anomalies.
- Post-partum Hemorrhage.
- WHO Medical Eligibility criteria 3/4.

Results

Out of total 31,212 deliveries between April 2018 to March 2021, 19,662 delivered vaginally, 11,588 delivered by C section.

Table 1: Distribution based on acceptance

	31,212
Accepting PPIUCD	702 (2.24%)
Not Accepting PPIUCD	30,210 (97.75%)
Sharma A, Gupta V study acceptance was 2.94%	

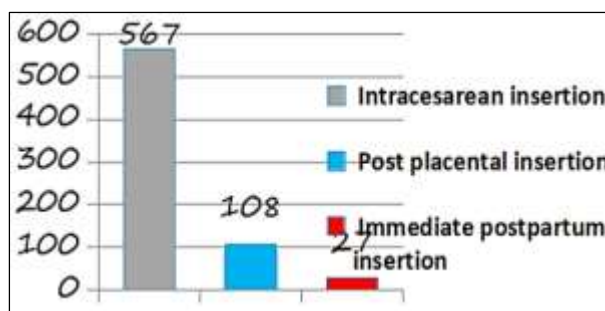


Graph 1

Out of total 31,212 deliveries between April 2018 to March 2021, 702 (2.24%) accepted PPIUCD as a method of contraception. As shown Table 1: Graph 1:

Table 2: Based on Timing of Insertion

Timing of PPIUCD insertion	No.
Intracesarean insertion	567(80.76%)
Post placental insertion	108 (15.38%)
Immediate postpartum insertion	27 (3.84%)

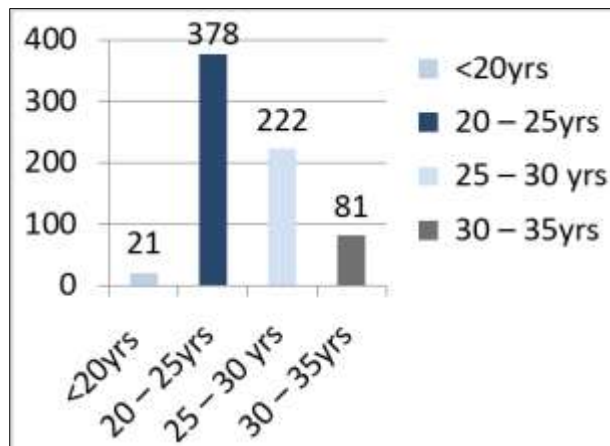


Graph 2

Based on timing of insertion, Intra cesarean was highest (80.76%). Post placental insertion (15.38%), immediate postpartum insertion (3.84%). As shown in Table 2: Graph 2:

Table 3: Distribution Based on Age group

Age group	No.
<20yrs	21(2.99%)
20 – 25yrs	378 (53.84%)
25 – 30 yrs	222 (31.62%)
30 – 35yrs	81 (11.53%)
Sharma, Gupta <i>et al.</i> M.C. Age Group 21-30 Years (82.96%)	

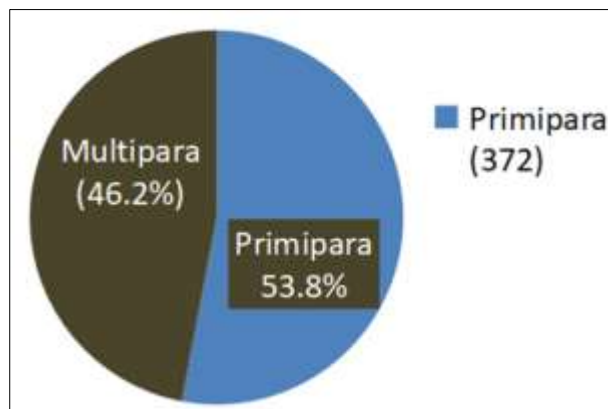


Graph 3

In the present study, highest acceptance was seen in women in the age group ranging from 20-25 years (53.84%), shown in the TABLE 3: Graph 3:

Table 4: Distribution Based on Parity

Parity	No.
Primipara	372 (53.8%)
Multipara	330 (46.2%)

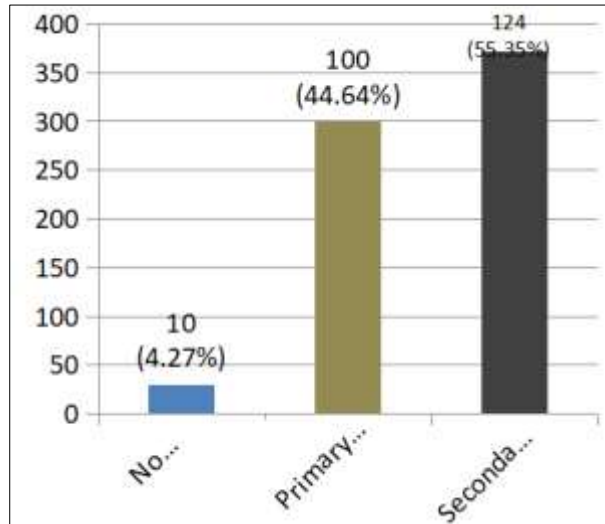


Graph 4

Acceptance was almost similar among Primipara (53.8%) and multipara (46.2%) As shown in Table 4: Graph 4:

Table 5: Distribution Based on Education Status

Education status	No.
No Formal Education	30 (4.46%)
Primary Education	300 (44.64%)



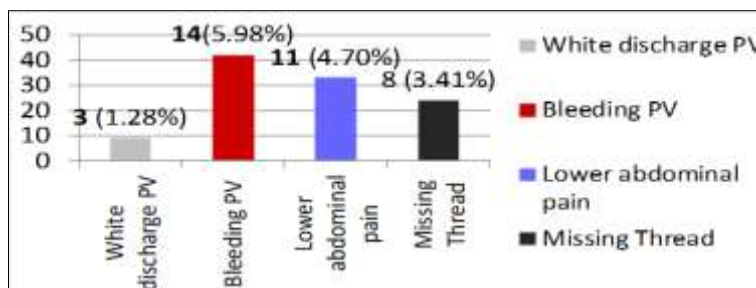
Graph 5

Among women who accepted PPIUCD, 95.72% had either Primary or Secondary education in Table 5: Graph 5:

We followed up 507 cases through PPIUCD registers kept at OPD or by telephone. Number of loss to follow up cases were 195.

Table 6: Complaints

Complaints	No.
White discharge PV	9
Bleeding PV	42
Lower abdominal pain	33
Missing Thread	24



Graph 6: Complaints during Follow-up Visits:

Most common complication reported was bleeding PV in about 5.9% Table 6: Graph 6

Table 7: Causes for Discontinuation

Causes for Discontinuation	No. 45
Lower abdominal pain	15 (2.13%)
Sexual Interference	21 (2.99%)
Missing Thread	9 (1.28%)

6.4% discontinued PPIUCD due to sexual interference [2.99%] as the commonest reason as shown in the Table 7: Graph 7:

Discussion

The world's population is proving to be an epidemic. Family planning measures must be strengthened at all levels, with the goal of limiting size and improving maternal and child health indices indirectly. PPIUCD helps in preventing unwanted pregnancies and helps in reducing maternal mortalities and morbidities due to unsafe abortions.

OUT of total 31,212 deliveries, only 2.24% accepted PPIUCD as a method of contraception. This is similar to finding reported by Sharma A, Gupta V study, acceptance was 2.94% [7]. This is in contrast to the other prospective studies conducted by Radhika *et al.* acceptance in their study was 11.98% [8], In their study a sample was selected, counselled and then they were followed up right from ANC visits. Our study suggests that less acceptance of PPIUCD services in our hospital reminds us to optimize PPIUCD services by counseling pregnant women right from ANC visits.

In the present study, highest acceptance was seen in women in the age group ranging from 20-25 years (53.84%), these findings are similar as results observed by Sharma, Gupta *et al.* mc age group 21-30 years (82.96%). Acceptance was almost similar among Primipara (53.8%) and multiparas (46.2%) [7]. Acceptance was higher among women who had either Primary or secondary level of education (55.35%). These findings are similar as results observed by Sharma, Gupta *et al.* acceptance was more common with secondary level of education (56.95%). Anjali *et al.* also found women who completed primary and secondary school level had high acceptance 25% & 38% compared to illiterates 13%. Education plays an important role in acceptance of PPIUCD [9].

Study found that most common complaints during follow-up visits were bleeding PV (5.98%). These findings are similar as results observed by Prathiba, Nihita *et al.* with Bleeding PV 6.3% [10]. But most of it subsided with counseling alone, also this tells us that women should be counselled regarding possibility of IUCD induced menorrhagia during its insertion. Other complications in our study were lower abdomen pain (5.98%) and missing thread (3.41%). Most common cause for discontinuation was sexual interference (2.99%) followed by lower abdomen pain (2.13%) and missing thread (1.28%). Many discontinued during the first 6 weeks. This was compared to a study by Radhika *et al.* in their study most common cause was menstrual disturbance followed by pain.

Limitations of our study was that we did not counsel all the women right from their ANC visits. Couple counseling about various family planning methods was not done. There were no enough data on missing thread.

Conclusion

Though IUCD is considered as the most appropriate method of contraception during the postpartum period there is poor acceptance for the same because of lack of awareness and myths prevalent in the community. Education and counseling can play a major role in acceptance and IUCD continuation rates. Counselling should take place in the antenatal period, in early labor or immediately postpartum^[8]. Obstetricians and nursing staff should play a major role to dispel myths and misconceptions prevalent with IUCDs. Cash incentives to acceptor, motivator and of course provider would bring about a substantial progress in the PPIUCD use in developing countries like India[8]. PPIUCD is a highly cost effective development intervention to promote healthy families, increase opportunities for economic development and enable strong and vibrant nations.

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