

To Assess the Acceptability, Safety, Efficacy, Continuation Rate and Rate of Expulsion of PPIUCD InsertionPratima Kumari¹, Anjana Lakhra²¹Senior Resident, Dept. of Obstetrics and Gynaecology, BMGMC, Shahdol, M.P.²OBG Consultant, OBG Consultant, Bihan Nursing Home, Shakti

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Conflict of interest: Nil

Abstract:

Background & Methods: The aim of the study is to assess the acceptability, safety, efficacy, continuation rate and rate of expulsion of PPIUCD insertion. After taking informed consent. In vaginal delivery. Bimanual exam was performed to evaluate the cervix and the uterus after the delivery of the placenta and ensured empty cavity with contracted uterus and evaluation of postpartum hemorrhage.

Results: Out of 255 patients, 230 (90.19%) came for 1st followup, 25 (9.8%) patients lost followup during 1st followup at 6 week. Out of 230 patients 19 (8.26%) patients excluded from study due to removal of PPIUCD after 1st followup at 6 weeks and 1 (0.4%) patient excluded from study after 1st followup due to expulsion of PPIUCD. During 2nd followup at 6 months, out of 210 patients, 180 (86%) patients came for 2nd followup at 6 months. 30 (14.3%) patients lost to followup during 2nd followup. Out of 180 patients, 15 (8.3%) patients excluded from study due to removal of PPIUCD after 2nd followup and 1(0.5%) excluded from study after 2nd followup due to expulsion of PPIUCD.

Conclusion: PPIUCD is one of the best contraceptive method because it is easy to apply, cheap and easily available and patients are highly motivated at postpartum period though expulsion rate was 1% still the result can be improved by motivating the women by periodic checkup of IUCD. Acceptance rate is poor. It can be improved by motivating the patient during antenatal period and counselling. This could be attributed to the fact that many women were unaware and to be informed about the benefits of PPIUCD only when they were admitted for delivery. Also the refusal of family members for PPIUCD usage adds the burdens of refusing contraception.

Keywords: acceptability, safety, efficacy, continuation rate and PPIUCD insertion.

Study Design: Observational Study.

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Introduction

India is the 2nd most populous country of the world with 1.38 billion people. It harbours 17.5% of the world's population in only 2.4% of the global land mass. It also houses almost 17.3% of the world's protected couples and 20% of world's eligible couples with unmet need, so large population size of India not only impact its own but also the global health indicator. [1]

The ideal time of family planning is postpartum period. Studies manifest that spacing less than two years of child birth can lead to obstetric complications and maternal morbidity, hence practice of contraception is mandatory. This study helps to determine the socioeconomic and demographic factors associated with post placental insertion of CuT. It also helps to determine the complications of PPIUCD insertion.

Postpartum period is one of the critical times when women need an integrated package of health services including contraceptive advices. AT this time, women are highly motivated and receptive to accept family planning methods. [2]

In India, 65% of women in the first postpartum have an unmet need for family planning. Short inter-conceptional period in a women puts her at increased risk of morbidity and mortality. [3] The significance of healthy spacing of pregnancy is emphasized by the fact that nearly 61% of births in India occur at interval that is shorter than the recommended birth to birth interval of approximately 36 months. [4]

Intra uterine contraceptive device (IUCD) to prevent pregnancy is among the oldest methods of contraception. The new IUCD is a highly effective, long-acting, safe, private, one time action, cost

effective methods of contraception. [5] It is rapidly reversible, coitus-independent method of contraception with relatively fewer side effects. [6]

Material and Methods

Study was conducted in the Department of Obstetrics and Gynaecology in Kamla Raja Hospital, Gwalior. Two years from November 2019 to July 2021 follow up of these patients at 6 weeks and 6 months.

Method of Insertion

1. After taking informed consent.
 2. In vaginal delivery
- Bimanual exam was performed to evaluate the cervix and the uterus after the delivery of the placenta and ensured empty cavity with contracted uterus and evaluation of postpartum hemorrhage.

Inclusion Criteria

1. Patients who delivered in the institution and giving written consent for PPIUCD insertion.
2. During enrolment the following criteria will be considered for inclusion:
3. 18 - 40 years old.
4. From period of viability upto postpartum period
5. Hb > 10 g/dl.

Exclusion Criteria

The patents with <10 gm% Hb, with pelvic infection, foetal loss (IUD) and following post-delivery complications were excluded:

1. Temperature >38°C during or after labor.
2. Rupture of membrane for >24 hours prior to delivery.
3. PPH.
4. Patient with medical disorder like – Diabetes Mellitus, Hypertension, Heart Disease, Tuberculosis, Jaundice, Asthma etc.

Result

Table 1: Reason for acceptance

Reason	Frequency (N)	%
Long term	15	5.9%
Fewer clinical visit	20	7.8%
Safe	40	15.7%
Reversible	95	37.2%
No interference with breast feeding	17	6.7%
No interference with sexual contact	16	6.3%
One time procedure	27	10.6%
My doctor's advice	25	9.8%
Total	255	100%

Out of 255 patients, 95(37.2%) patients were accepted due to its reversible nature.

- | | |
|--|--|
| <input type="checkbox"/> 40(15.7%) patients accepted for safe. | <input type="checkbox"/> By doctor's advice 25(9.8%) patients. |
| <input type="checkbox"/> One time – 27(10.6%) patients accepted IUCD because of it is a one-time procedure when compared such as injectable or oral contraceptive pills which will have to be taken every day. | <input type="checkbox"/> Fever clinical visit 20(7.8%) patients. |
| | <input type="checkbox"/> No interference with breastfeeding 17(6.7%) patients. |
| | <input type="checkbox"/> 15(5.9%) due to longterm usage. |

Table 2: Age wise distribution of Study Participants

Age Group	Frequency (N)	%
<20 Year	18	7.1%
21-25 Year	106	41.6%
26-30 Year	82	32.2%
31-35 Year	30	11.8%
>35 Year	19	7.5%
Total	255	100%

Total number of patients in the study is 255. The mean age is 26.25 years. The median age is 26, minimum and maximum 40 years. Majority 106 (41.6%) patients belong to age group of 21-25 years.

Table 3: Parity wise distribution of Study Participants

Gravida	Frequency (N)	%
P1	55	21.6%
P2	94	36.9%
P3	64	25.0%
P4	41	16.1%
P5	1	0.4
Total	255	100%

Out of 255 patients, 94 (36.9%) was para 2 followed by para 3 and para 1 respectively. This is because method is used either for spacing between two births or to delay pregnancy till they go for permanent method of sterilization after 2/3 children. Most of the couples undergo tubal ligation/NSVT, that's why its low after para 3.

Table 4: Distribution of cases according to mode of delivery

Mode of Delivery	Frequency (N)	%
Normal Vaginal Delivery	169	66.3%
LSCS	86	33.7%
Total	255	100%

Out of 255 patients, 169 (66.3%) patients were delivered by vaginal and 86 (33.7%) patients were delivered by LSCS (cesarean section). The reason could be:

1. Normal delivery are more than cesarean section (LSCS).
2. The fear of complications due to PPIUCD in-

sertion is more among the LSCS patients than the normally delivered patients.

3. Large of patients undergoing LSCS were excluded from the study because of complications like PROM, chorio-amnionitis, placenta previa, couvelier uterus, obstructed labour etc.

Table 5: Follow up of cases

Follow up	1 st Follow up (at 6 week)		2 nd Follow up (at 6 month)	
	N	%	N	%
Follow up	230	90.1%	180	85.71%
Lost to follow up	25	9.8%	30	14.28%
Total	255	100%	210	100%

Out of 255 patients, 230 (90.19%) came for 1st followup, 25 (9.8%) patients lost followup during 1st followup at 6 week. Out of 230 patients 19 (8.26%) patients excluded from study due to removal of PPIUCD after 1st followup at 6 weeks and 1 (0.4%) patient excluded from study after 1st followup due to expulsion of PPIUCD.

During 2nd followup at 6 months, out of 210 patients, 180 (86%) patients came for 2nd followup at 6 months. 30 (14.3%) patients lost to followup during 2nd followup. Out of 180 patients, 15 (8.3%) patients excluded from study due to removal of PPIUCD after 2nd followup and 1(0.5%) excluded from study after 2nd followup due to expulsion of PPIUCD.

Discussion

The acceptance rate for copper T 380A was 1.66% and majority of the women who accepted belonged to age group (21-25 yrs) 106 (41.6%), the mean age was 26.25 ± 4.33 which was comparable to study done by Runjun Doley et al⁸ (2013-2015) and Sahaja Kittur et al [9] (2010) and in the study done by Somesh Kumar (2014) [10], in which mean (SD) age of women accepting PPIUCD was 24 years.

In a study done by Srivastava and Bano [11] the maximum number of acceptors belonged to the para 2 group which accounted for 36.86%. In the present study maximum number of acceptor were also belonged to the para 2 group which accounted for 36.9% which was comparable to above study. This was because, this method is used either for spacing between two births or to delay pregnancy till they go for permanent method of sterilization after 2 or 3 children. Most of the couples undergo

tubal ligation/Non Scapel Vasectomy, that's why its lower after para 3.

In present study expulsion rate was 1%. In the study done by Runjun Doley et al [8] (2013-2015) expulsion rate was 1.6%. So, present study is comparable to Runjun Doley et al [8] study.

In a study removal was 0.76%. In the study done by Mishra Sujnanendra et al [2] (2012-2013) removal rate was 7.65. In the study done by Runjun Doley et al [8] (2013-2015) removal rate was 7%. In the study Jisha Bai et al [12] (2015) removal rate was 6.2%. Present study was not comparable to above study.

Main reason of removal was fear of bleeding. All women were counselled regarding their problem and reassurance were given. In study by Mishra Sujnanendra et al [2] (2012-2013) in which the reason of majority of women discontinuing Cooper T was bleeding.

Conclusion

PPIUCD is one of the best contraceptive method because it is easy to apply, cheap and easily available and patients are highly motivated at postpartum period though expulsion rate was 1% still the result can be improved the motivating the women by periodic checkup of IUCD. Acceptance rate is poor. It can be improved by motivating the patient during antenatal period and counselling. This could be attributed to the fact that many women were unaware and to be informed about the benefits of PPIUCD only when they were admitted for delivery. Also the refusal of family members for PPIUD usage adds the burdens of refusing contraception.

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