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A PROSPECTIVE STUDY ON ACCEPTANCE AND CLINICAL OUTCOME OF INTRA CAESAREAN POST PLACENTAL IUCD INSERTION AT A TEACHING HOSPITAL.

Gynaecology

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ABSTRACT

This was a study of 206 patients at a tertiary care institute who were counselled for intra cesarean IUCD if they fulfilled the criteria of inclusion. The 105 acceptors (Group A) and 101 who did not accept (Group B) were compared. Systematic follow up of all were done at discharge, 6 weeks and 6 months. 84(80%) did not have any complaints. While irregular bleeding (14.5%), white discharge (4.5%) and abdominal pain (3.4%) were reported in the others. Efficacy of Intracaesarean IUCD was determined by expulsion and continuation rate. In our study, we found zero % expulsion rate and 91.2 % continuation rate.

The most common reason for discontinuation of IUCD in our study was bleeding per vagina 5 (4.76 %), pain in abdomen 2 (1.9 %) and white discharge per vagina 1 (0.95 %). Of the total 8/105 who discontinued, majority were for bleeding per vagina. Major reason for refusal in group B were fear of complication (42%) or preference for another method (27.8%). Personal and family issues were sited in 22.8 %. 88(83.9%) of acceptors and 59(58.4%) of non- acceptors had never used any method before. In prior contraceptive use in both groups, all were short term methods and interval IUCD were amongst the least used.

As the rate of caesarean section is increasing, intra-caesarean IUCD, represents a golden opportunity to reach one third or more of the obstetric population at the time of delivery. The PPIUCD was demonstrably safe, having no reported incidence of perforation with low rates of expulsion, pelvic infection and lost strings. The Intra-caesarean PPIUCD should be included as a part of obstetrical management of the patient who might be misusing abortion as a form of contraception and gives a chance to meet the unmet need for contraception. The PPIUCD also offers an alternative method to sterilization for patients with low parity but not keen on further child bearing. Our study supports the Govt. Of India guidelines that PPIUCD should be part of every hospital's Family Welfare Programme to give maximum benefit to patients.

KEYWORDS

INTRODUCTION

In recent census of 2011 India's population has reached 121 crores [1] and it is estimated to reach a figure of 1.53 billion by 2050, making it the most populous country in the world [2]. A large proportion of the women in the postpartum period want to accept a contraceptive method to regulate their fertility, either by spacing or limiting future pregnancy. [4]. The Intrauterine device (IUCD) is an effective, long lasting and reversible method of birth control with a cumulative pregnancy rate of less than 1 in 100 women. [6] Trials of IUCD placement intra caesarean have proven to be safe, effective and feasible with even higher retention than other routes of PPIUCD. [7]

The use of PPIUCD is to fulfil the unmet needs for contraception, as most of the beneficiaries never used any form of contraception earlier, as unwanted and mistimed pregnancy results in adverse outcomes for both the mother and the child. As most women belonged to low socio-economic strata of the society, postpartum IUCD is also cost effective since same infrastructure and staff are involved and eliminates transportation, costs and service fees paid by women for making an additional visit for IUCD insertion. An added benefit of post placental IUCD is the risk of expulsion and uterine perforation following insertion is low. There is no increased risk of pelvic infection and no effect on breast milk quantity and quality seen.

MATERIALAND METHODS:

Study Population:

The study population is all the women availing obstetric care and undergoing LSCS at the hospital.

Study Design:

The proposed study "Acceptance and Clinical Outcome of Intra Caesarean Post Placental IUCD Insertion at A Teaching Hospital" has been conducted at a tertiary teaching hospital in Mumbai. It is a prospective, observational study.

Study Group:

All patients who are suitable candidates meet the inclusion criteria for IUCD insertion, highly motivated & willing to accept IUCD as a contraceptive method at LSCS are eligible for the study. In the proposed study, Group A included the patients who accepts to insert IUCD. The patient who had been counselled but did not wanted to accept the IUCD and were not undergoing tubal ligation in the same setting (so they were eligible for other methods of contraception), were Group B. Different variables like age, marital status, socio economic status, obstetrics history, menstrual history, education, occupation of wife and husband, type of family, medical and surgical disorder, history of per vaginal bleeding & discharge, status of membrane, indication of LSCS, contact number and address are documented. In this study, we had assessed the primary outcome measures such as unplanned pregnancy, expulsion rate, removal rate, continuation rate and safety.

RESULTS

Table 1: Distribution of study group as per Age Group: (Group A):

Age Group	Frequency	Percent
Up-to 20 years	9	8.57 %
21 to 25 years	49	46.67 %
26 to 30 years	32	30.48 %
More than 30 years	15	14.28 %
Total	105	100 %

- Most of the patients (46.67 %) were aged between 21 to 25 years who accepted PPIUCD. The mean age of the patient accepting IUCD is 26.2 (4.2) whereas those not accepting is 25.9(4.1) showing no significance.

Figure 1: Educational status of study participants in the two groups:

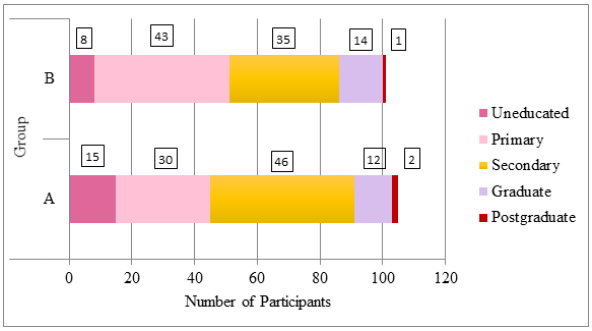

Figure 2: Religion of participants of the study groups:

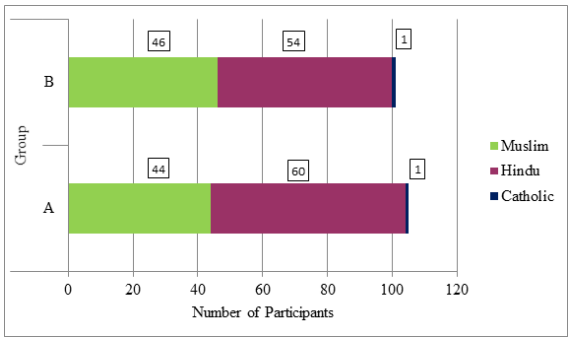

Figure 3: Family Type of the study Participants:

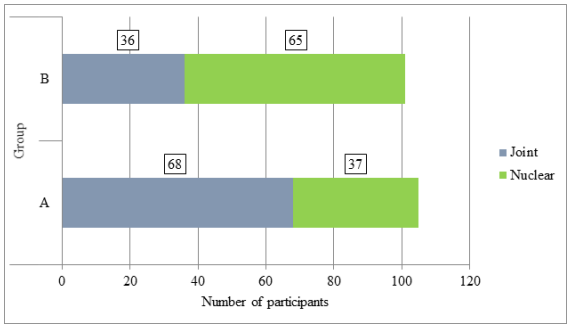

Table 2: Distribution of study group as per Parity: (Group A)

Parity	Frequency	Percent
Primi	29	27.61 %
G2	38	36.19 %
G3	24	22.85 %
G4 and above	14	13.35 %
Total	105	100 %

Most of the patients (36.19%) were second Gravida.

Figure 4: Number of living children of the study Participants in the two groups:

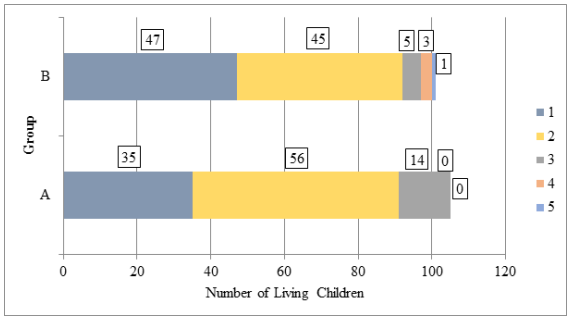

Table 3: Follow up status of the study participants in the two groups:

Study Group	Total Participants at the time of initiation of the study	Number of participants who followed up post delivery Number (Percentage)		
		At 6 weeks	At 6 months	At both 6 weeks and 6 months
Group A	105	90 (85.7)	83 (79.0)	83 (79.0)
Group B	101	85 (84.2)	83 (82.2)	83 (82.2)
Total	206	175 (85.0)	166 (80.6)	166 (80.6)
p value* (Chi square Test)	-	0.755	0.570	0.570

*Not significant at 0.05 level of significance.

- Majority of the patients 90 (85.70%) followed up in person to hospital at 6 weeks and at 6 months 83(79 %) patients followed up in person to hospital. Rest of the patients who failed to follow up in person were called and enquired about problems associated with Cu-T and about position of threads.

Figure 5: Time of motivational counselling of the study participants for IUCD acceptance:

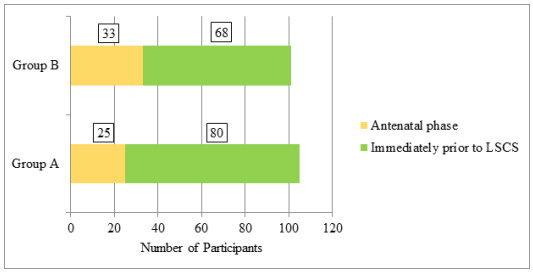

Figure 6: Acceptance rate of immediate post-partum IUCD at LSCS based on indication for LSCS

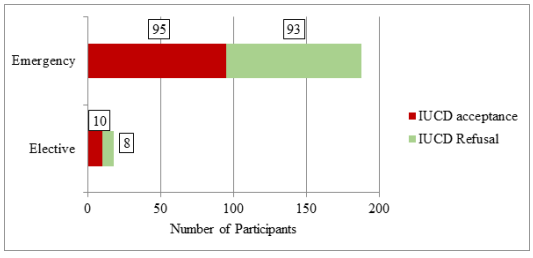

Figure 7: Previous contraceptive practice among the study participants who accepted IUCD :

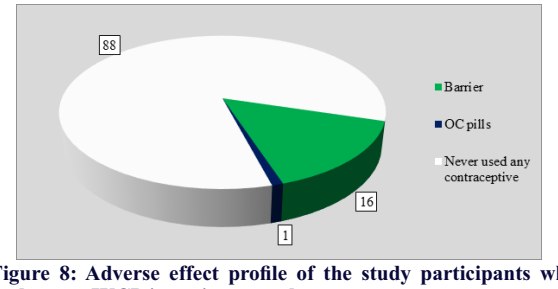

Figure 8: Adverse effect profile of the study participants who underwent IUCD insertion procedure:

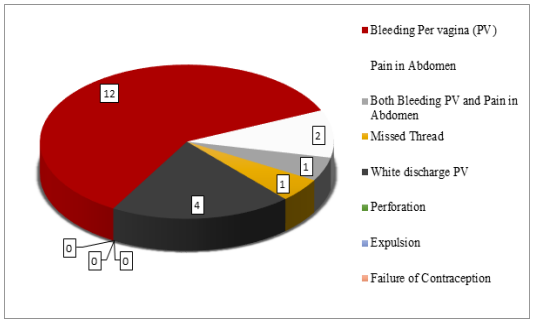

Figure 9: Discontinuation rate of IUCD among participants who experienced adverse effects:

Adverse Events following IUCD insertion	Number of participants reporting the side-effect who discontinued the use of the IUCD (Percentage)	
Bleeding Per vagina	5 (4.76)	5 / 8
White discharge (per vagina)	1 (0.95)	1 / 4
Pain in Abdomen	2 (1.9)	2 / 1
Missed Thread	0 (0.0)	1

Discontinued IUCD Continued IUCD

- Majority of patients complained of bleeding per vagina (4.76%) and white discharge per vagina (0.95%) patients while 2 patients (1.9%) complained of pain in abdomen.

Figure 10: Time of first appearance of thread of IUCD after insertion:

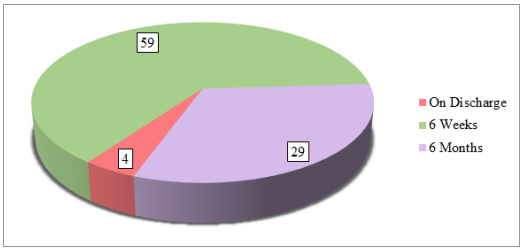

Table 4: Continuation rate of IUCD among the study participants:

Continuation of use of IUCD	Number of participants (Percentage)
Yes	82 (91.2)
No	8 (8.8)
Total	90 (100)

-After delivery, till the time of discharge, none of the study participants who had undergone the procedure of IUCD insertion had any major or life-threatening adverse effects. Also, no such effects were reported among the study participants upto 6 months of follow-up.

Table 5: Factors affecting continuation of IUCD among the study participants:

	Continuation of IUCD		p value
	No	Yes	
Time of counselling			
ANC OPD	2 (9.6)	19 (90.5)	**1**
Prior to LSCS	6 (8.7)	63 (91.4)	
Bleeding per vagina			
No	3 (3.9)	74 (96.2)	**0.001***
Yes	5 (38.5)	8 (61.6)	
White Discharge per vagina			
No	7 (8.2)	79 (91.9)	**0.315**
Yes	1 (25)	3 (75)	
Pain in Abdomen			
No	6 (6.9)	81 (93.2)	**0.020***
Yes	2 (66.7)	1 (33.4)	
Missed Thread			
No	8 (9)	81 (91.1)	**-**
Yes	0 (0)	1 (100)	
Total	8 (8.9)	82 (91.1)	

*Significant at 0.05 level of significance. Fisher Exact test used.

Figure 11: Reasons of refusal of IUCD among the participants:

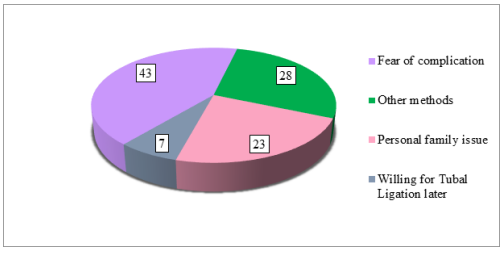

Table 6: Contraceptive use among study participants in those who did not accept IUCD (Group B), (up to six months).

Method Used	Number (Percentage)
Barrier	13 (12.9)
Cu-T insertion in post-natal period	3 (3)
Inj DMPA	3 (3)
No Follow up	14 (13.9)
No methods used	59 (58.4)
OC pills	6 (5.9)
Tubal ligation done	3 (3)
Total	**101 (100)**

- Majority of patients declining PPIUCD used barrier method 12.9 % while the least preferred method was Interval IUCD 3 %, injection DMPA 3 %, tubal Ligation 3%. At 6 months follow up 58.4 % patients used no contraceptive method.

SUMMARY

This was a study of 206 patients at a tertiary care institute who were counselled for intra cesarean IUCD if they fulfilled the criteria of inclusion. The 105 acceptors (Group A) and 101 who did not accept (Group B) were compared. Systematic follow up of all were done at discharge, 6 weeks and 6 months. 84(80%) did not have any complaints. While irregular bleeding (14.5%), white discharge (4.5%) and abdominal pain (3.4%) were reported in the others. Efficacy of Intracaesarean IUCD was determined by expulsion and continuation rate. In our study, we found zero % expulsion rate and 91.2 % continuation rate.

The most common reason for discontinuation of IUCD in our study was bleeding per vagina 5 (4.76 %), pain in abdomen 2 (1.9 %) and white discharge per vagina 1 (0.95 %). Of the total 8/105 who discontinued, majority were for bleeding per vagina. Major reason for refusal in group B were fear of complication (42%) or preference for another method (27.8%). Personal and family issues were sited in 22.8 %. 88(83.9%) of acceptors and 59(58.4%) of non- acceptors had never used any method before. In prior contraceptive use in both groups, all were short term methods and interval IUCD were amongst the least used. At 6 months follow up,58.4% patients used no contraceptive method.

CONCLUSION

From the above study, we concluded that postpartum insertion of PPIUCD is safe effective, feasible and reversible method of contraception. The acceptance of PPIUCD was high in the parturient studied but comparable to other studies done globally. Postpartum insertions do not increase the risk of infection or endometritis, bleeding, uterine perforation. Nor do they affect the return of uterus to normal size. Particularly noteworthy is the very low rate of perforation in the immediate postpartum period because of the thickened uterine walls.

As the rate of caesarean section is increasing, intra-caesarean IUCD, represents a golden opportunity to reach one third or more of the obstetric population at the time of delivery. The PPIUCD was demonstrably safe, having no reported incidence of perforation with low rates of expulsion, pelvic infection and lost strings. The Intra-caesarean PPIUCD should be included as a part of obstetrical management of the patient who might be misusing abortion as a form of contraception and gives a chance to meet the unmet need for contraception. The PPIUCD also offers an alternative method to sterilization for patients with low parity but not keen on further child bearing.

Our study supports the Govt. Of India guidelines that PPIUCD should be part of every hospital's Family Welfare Programme to give maximum benefit to patients.

DISCUSSION

The present study was conducted to access the acceptance, safety, efficacy and insertion related complications of IUCD insertion within ten minutes after placental delivery at caesarean section to address the unmet need for postpartum spacing methods. As the rate of caesarean section is increasing, providing the PPIUCD immediately during caesarean section presents a convenient opportunity for postpartum women to obtain a long acting method of contraception. Various socio-demographic and Obstetric parameters of those patients who has accepted PPIUCD was determined as secondary outcome of the study. We also studied various associated factors in Group A and Group B patients such as previous contraceptive method used, reasons for declining, preference of other method of contraception in those who declined.

We not only studied the procedure and efficacy in immediate post procedure period but also followed up the patients at 6 weeks and 6 months, who has accepted PPIUCD and studied and treated the complications at different follow up visits. We also studied continuation rate of PPIUCD at 6 months of insertion.

Given the low rate of return for interval insertion, immediate placement may be preferable. Though some studies have indicated that expulsion rates appear to be higher than with interval insertion this is

more applicable for developing countries like India where delivery may be the only time when a healthy woman encounters health care providers and the chances of returning for contraceptive advice are uncertain.

PPIUCD are the only postpartum family planning method for couples requesting a highly effective, reversible, yet long term contraceptive method that can be initiated during immediate postpartum period in lactating women. WHO medical eligibility criteria states that it is generally safe for postpartum lactating women to use PPIUCD with the advantages overweighing disadvantages. We can reduce the unmet need of family planning with this contraceptive. PPIUCD is more convenient for health care providers and for acceptors- using opportunity of child birth when both the mother and provider are at hospital. Another family planning visit and hospitalization is not necessary which is advantageous for socio-economically weaker section of women, who depend on Government hospitals for health care. Fewer instruments and staff are necessary for PPIUCD than for interval IUCD. Govt. of India promotes institutional deliveries and it provides increased opportunity for immediate postpartum insertion of Cu T. Advantages of immediate postpartum insertion are high motivation, assurance that she is not pregnant and convenience.

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