


Original Research Article

Intra Cesarean – Intra Uterine Contraceptive Device 380 A Insertion: 3 years Experience at a Tertiary Care Center

P. Malathi^{1*}, Krupa Patalay²

¹Associate Professor, ²Assistant Professor,
Department of Obstetrics and Gynecology, MGMH, Hyderabad, India

*Corresponding author email: malathiponnuru@gmail.com

	International Archives of Integrated Medicine, Vol. 3, Issue 8, August, 2016. Copy right © 2016, IAIM, All Rights Reserved. Available online at http://iaimjournal.com/	
	ISSN: 2394-0026 (P)	ISSN: 2394-0034 (O)
	Received on: 05-08-2016	Accepted on: 12-08-2016
	Source of support: Nil	Conflict of interest: None declared.
How to cite this article: P. Malathi, Krupa Patalay. Intra Cesarean – Intra Uterine Contraceptive Device 380 A Insertion: 3 years Experience at a Tertiary Care Center. IAIM, 2016; 3(8): 241-247.		

Abstract

Background: In India, 65% of women in the first year of post-partum period have an unmet need for family planning. Hence contraception needs to be practiced in this critical period.

Aim: The present study was planned to evaluate the efficacy, safety, and compliance of intra Cesarean IUD insertions.

Materials and methods: This was a prospective study for 3 years. Women recruited had CuT-380A insertion immediately after delivery of the placenta during Elective /Emergency Cesarean section. Women having unresolved post-partum hemorrhage (PPH), pre-labor rupture of membranes of (PROM) >18 hrs, fever >38 °C, congenital uterine malformation and fibroid uterus distorting the cavity were excluded from the study. The women were followed up with 3 visits at 4- 6 weeks, 3 months and 1 year.

Results: Total women counseled were 4141, accepted no was 2850, declined no was 1291, consented but not inserted in 109 as criteria was not met. Lost to follow up 46, followed up 2850, complications (Expulsion 6, IUCD in situ with pregnancy 1, Bleeding 33, String problem 363, Removal 28, Continuation 2745).

Conclusion: Immediate post –placental IUCD insertion provides highly effective contraception to the woman at the time of discharge itself. The government needs to develop strategies to increase public awareness of the PPIUCD through different media sources.

Key words

IUCD, Intra Cesarean insertion, 380A.

Introduction

Introduction of JSY and JSSK has increased institutional deliveries to tune of 75%. Intra Cesarean IUCD insertions can be provided at any time of the day without any extra arrangements. In India, 65% of women in the first year of postpartum period have an unmet need for family planning. Hence contraception needs to be practiced in this critical period. Studies show that pregnancies taking place within 2 years of a previous live birth have increased risk of adverse outcomes like abortions, premature labor, Preterm PROM, post-partum hemorrhage, maternal anemia, low birth weight babies, fetal loss and maternal morbidity and mortality. Extended Post-partum period is a crucial time when both women and new born require special and integrated package of health services which includes use of effective family planning method. Insertion of an IUCD immediately after delivery is convenient for both women and providers. The evidence for post-partum IUCD insertion was weak when this study was undertaken. Hence the present study was planned to evaluate the safety and efficacy of insertion of immediate post-partum IUCD in women delivering by Cesarean section.

Materials and methods

This was a prospective study carried out in the department of OBG, MGMH from 2010 to 2015. Women delivering in the hospital fulfilling inclusion criteria were included in the study after obtaining informed consent.

Inclusion criteria

All antenatal women admitted for delivery to our hospital were counseled for PPIUCD. Counseling was done either before posting for Cesarean section or in early labor. Informed Consent was obtained from those, who opted for insertion; they should be aged between 18-45 years old, GA- 34-42 weeks, desire to have CuT after counseling before insertion, no genital infections, Hemoglobin level should be > 8g/dl, AMTSL universally provided after delivery.

Exclusion criteria

Patients having fever during labor and delivery (Temperature > 38°C), those having active STI and other genital tract infection or high risk of STI, those known to have ruptured membranes for > 18 hours prior to delivery, those known to have uterine abnormalities, e.g.; Bicornuate/septate uterus, uterine myomas, those who manually had removed placenta, those who had unresolved postpartum hemorrhage (PPH) requiring use of additional oxytocic agents in addition to AMTSL were excluded.

Total number of patients studied was 4141 in which 2850 are included and 1291 refused.

Uterine cavity was inspected for presence of malformations following placental delivery. IUCD Package was checked for seal and expiry date. Uterus exteriorized unless it was not feasible, stabilized by grasping it at fundus. IUCD is held between middle and index finger. It was inserted into the uterus through uterine incision and released at fundus of uterus. Hand was removed slowly from the uterus with fingers partially open along the left lateral wall of the uterus to minimize displacement. Strings were guided toward the lower uterine segment without disturbing IUCD fundal position. Strings were not trimmed. Enough care was taken not to include IUCD strings during uterine closure by lifting the edges, gentle mopping of the field and avoiding direct suctioning of the cavity. Later prior to discharge, Discharge card mentioning the date of insertion and measuring card depicting type of IUCD was given with details written on the back side. Women were counseled to follow Lactation Amenorrhea method for 6 months to minimize menstrual related side effects. Women were informed about the IUCD side effects, normal postpartum symptoms and to check the diapers before disposal for expulsion. Woman was told when to return for IUCD follow-up/PNC/newborn check up. (4-6 weeks). Woman was advised to come back any time she experienced PAINS, Period related problems or pregnancy related symptoms, Abdominal pain, Foul smelling vaginal discharge different from

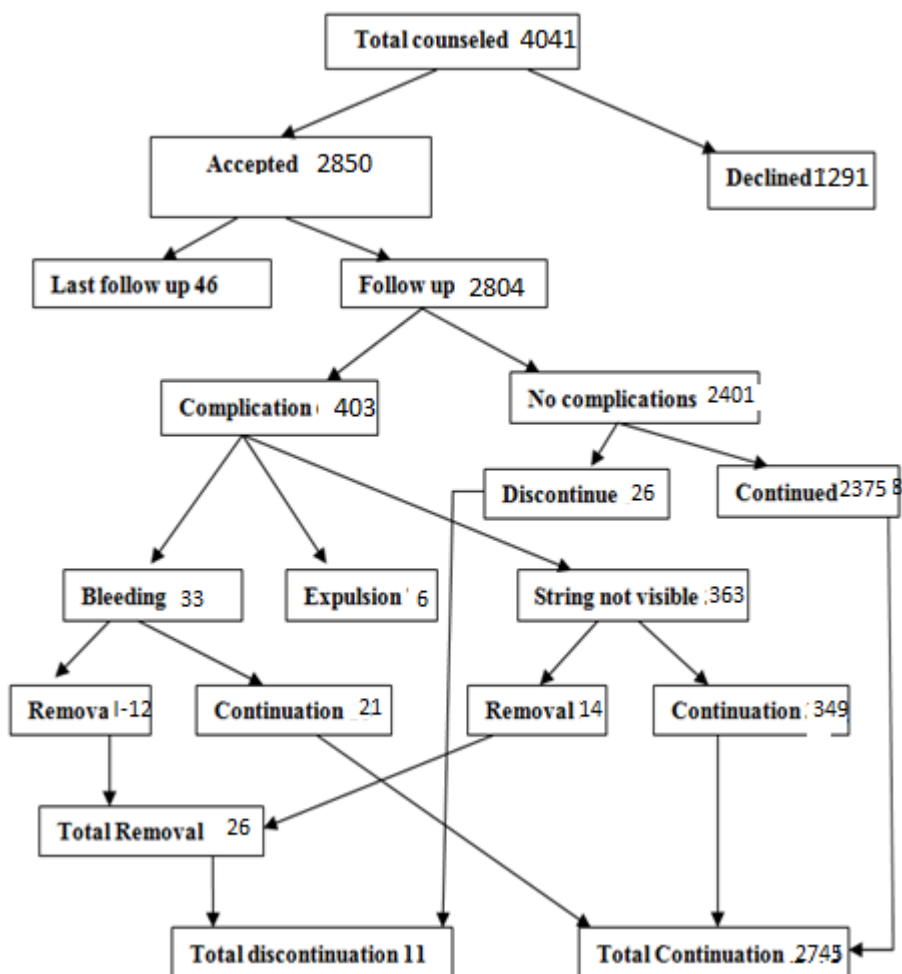
the usual lochia suggestive of Infection, String related problem like strings coming out of vagina and falling of IUCD.

Results

Total number of patients studied was 4141, in which 2850 were accepted 1291 were refused. Scheme followed in the study was as per **Figure**

– 1. Demographic details in the study were as per **Table – 1**. Reasons for acceptance and refusal among parturient included in study was as per **Table – 2**. Complications, timing and rate of expulsion were as per **Table – 3**. Reason for removal of IUCD, continuation rate was as per **Table – 4**.

Figure - 1: Scheme followed in the study.



Discussion

Many studies have been reported regarding intra Cesarean. Dr. SathyaFvathi Maluchuru, et al. [1], the present study is planned to evaluate the efficacy, safety, compliance of immediate post-partum IUD insertion in women delivering vaginally or by Cesarean section in a tertiary care facility, during a period of 2 years (i.e. 2013 February to 2015 February). The women recruited had CuT-380A insertion immediately

after delivery of the placenta in normal delivery or Cesarean section. Women having post-partum hemorrhage (PPH), prelabour rupture or membranes (PROM) >18 hours, fever >38 °C, congenital malformation and fibroid uterus were excluded from the study. The women were followed up at 6 weeks and 6 months after delivery. Total women counseled 4141 accepted 2850, declined 1291, lost to follow up 46, followed up 2804, complications 403 (Expulsion

7, Bleeding 23, String problem 363, Removal 11, continuation 2745). Immediate post-partum IUCD insertion provides highly effective contraception immediately after delivery. Although the expulsion rate for immediate post-partum is higher than for interval insertion particularly in country where women have limited access to medical care. The government needs to develop strategies to increase public awareness of the PPIUCD through different media sources. It is also important to arrange training on PPIUCD in order to increase knowledge and skills among health care providers. This will also further promote PPIUCD use and aid in reduction of expulsion rates. Case incentives to the acceptor, motivator and provider will bring about substantial progress in the PPIUCD use in developing countries like India. Anjali Vivek kanhere, et al. [2] is a prospective analytical study conducted at Department of Obstetrics and Gynecology, PCMS & RC Bhopal. 200 eligible postpartum women were counselled for IUCD insertion. After consent, Cu-T 380 A insertion was done. These women were also interviewed for their reasons for accepting and rejecting PPIUCD and their preference for other forms of contraception. Follow-up was done at 6 week or when they reported with any complaint. The results were that out of 200 eligible postpartum patients counselled, 72 (36%) women underwent PPIUCD insertion which was significantly low as compared to preference to use of other methods of contraception at a later date (66%). Acceptance of PPIUCD was higher in the age group of 21-29 years (35%), para-1 (48%), and educated (60%) clients. Expulsion rate was 22%. There was no case of perforation or any other major complication. 52 cases (72%) reported for follow up. 43% of cases were comfortable with PPIUCD at 6 weeks. There was no case of perforation, PID reported in our study. Only one patient reported with intrauterine pregnancy at 6months with IUCD in place. PPIUCD was not very acceptable in our set up but it is a safe, highly effective, long acting, cost effective method of contraception with very few side effects and no major complication and

contraindication. The feasibility of accepting PPIUCD insertion can increase with antenatal counselling and institutional deliveries was concluded from this study. Mohamed SA, et al. [3], evaluated the acceptance of postpartum intrauterine contraceptive devices (PPIUCD) among the inhabitants of Assiut governorate, Egypt and to study the factors that influence this acceptance. Contraceptive counseling was given to 3,541 clients: 1,880 and 1,661 during the antenatal visits and postpartum hospitalization, respectively. Acceptors during antenatal counseling were to receive IUCDs via post placental insertion in the case of vaginal delivery or trans Cesarean insertion in case of abdominal delivery. The clients who refused PPIUCD and chose interval IUCD insertion were referred to the Family Planning Clinic after the end of puerperium. Among postpartum counselees, PPIUCD acceptors received predischarge insertion within 48 h of delivery and the interval IUCD were referred to have IUCD inserted after the end of puerperium. The acceptance rate of both PPIUCD and interval IUCD and the percentage of actual insertions were recorded. The causes of both acceptance and refusal were also recorded. The results were of the 3,541 clients, 1,024 (28.9%) accepted the use of IUCD after delivery. Acceptance was approximately the same during antenatal and postpartum counseling: 26.4 and 31.8%, respectively. Verbal acceptance was higher among women with formal education than among illiterate women. Planning another pregnancy in the near future, preference for another contraceptive method, namely lactational infertility and complications from previous use of IUCD were the most common reasons for refusing the use of IUCD. Of the 1,024 verbal acceptors, only 243 (23.7%) had the actual insertion of IUCD. They concluded that both the acceptance and actual insertion of IUCD were low probably because the use of IUCD is a new concept in the community. For these women, the only opportunity to receive information about contraceptives is during childbirth when they are in contact with medical personnel. Hence, it is suggested that family planning should be integrated with maternal and child-care services

in order to effectively promote the use of contraceptive devices in these women who otherwise would not seek the use of such a device. Education has a positive effect on contraceptive use as shown in the study in Zimbabwe [4]. It was only apparent among women who completed secondary education (12 years or more). Women who completed secondary school were about twice as likely to use modern contraceptive methods as women who did complete primary education. In this study, it is as high as acceptance of intrauterine contraceptive device was the most common among primigravida and second gravida women. In case of multiparous it was, this finding is contrary to that of the study by Grimes, et al. [5] where they found higher acceptance in multiparous clients (65.1%). The duration since last child birth was significantly associated with acceptance of PPIUCD. Women who came for first delivery with short pregnancy interval felt the need for a long acting and reliable method of contraception. In a report released by WHO in 2006, better family planning and birth spacing services resulted in better maternal and neonatal outcome. When promoted in countries with high birth rates, 32% of all maternal deaths and over one million deaths of children under 5 years could be prevented. Healthy timing and spacing of pregnancies have a positive effect on maternal health and new born outcomes [6]. The distinct advantages of PPIUCD is it is free from systemic side effects and does not affect breast feeding as seen with hormonal methods. It is a reversible method. PPIUCD does not require regular user compliance and not coital dependent like male condoms. There were no cases of perforation. 5 cases of misplaced IUCD (myometrial embedment) requiring removal USG guided under paracervical block in 4 and hysteroscopy guided in 1 in the present study. A significant number of women declined PPIUCD because of partner and or other family members non-involvement or refusal. This reveals the importance of partner involvement during counseling and decision making. Many studies [7] have shown that when the partner is involved in contraceptive counseling and decision making,

the acceptance and continuation rates were higher. Therefore Antenatal counseling involving partner seems to give adequate opportunity to increase the compliance. Husband and other family member's pressure for IUCD removal was a significant reason for removal next to bleeding and menstrual disturbance. The other major reason for declining was myths and misconceptions on IUCD. This was overcome by effective counseling and assurance on removal if any side effects were experienced. Like other studies bleeding out numbers other complications. It is really worrying. But only out of insisted on removal, rest retained IUCD with reassurance only, which speaks of the importance of positive attitude. Thirty two among those inserted with PPIUCD had lost strings during first follow up at 4-6 weeks. In cases, strings were found at cervical canal. Rest cases needed ultrasound and confirmed that the IUCD was in situ. One of them insisted on removal. On removal, curling and retraction of strings into the uterine cavity were confirmed. It should be noted that there were no serious complications in the study. Expulsion rates of the immediate PPIUCD at 4-6 wks interval. This was similar to a multi country study done in Belgium, Chile and Phillippines [8] which showed the rate of expulsion at 1 month ranging from 4.6 to 16%. Removal rates are similar in clients having or not having complication. It speaks of the importance and motivation prior to insertion in continuing PPIUCD. In the present study there were no cases of PID. A study conducted in 13 countries studied on infection (PID) due to IUD. They have reported similar rate of infection with immediate insertion and interval insertion. Another trial did not find any instance of infection due to post-partum IUCD [9, 10]. Expulsion rate of immediate PPIUCD in a study done in China by Chi, et al. 1994, was 25 – 37%, while post-placental was 9.5 – 12.5%. Expulsion of PPIUCD usually occurs in the first few months after insertion. In a multicenter study done by Tatum et al, the expulsion rates of PPIUCD were similar at 1 and 12 months in Belgium (4%) and Chile (7%), while in the Philippines, expulsion increased from 19% at 1

month to 28% at 12 months follow-up.

Table - 1: Demographic details in study.

Age in years	N=4041
<19	1193
20-29	1987
30-39	861
Educational status	
No formal education	1732
Primary	1030
Secondary	503
Higher education	776
Economic status	
Low	1894
Medium	1854
High	293
Parity	
Uniparous	2431
Biparous	1245
Multiparous	365
Last child birth in years	
0-2	2134
02-Mar	1450
03-Apr	402
≥ 5 years	55

Table – 2: Reasons for acceptance and refusal among parturient included in study.

Reasons for acceptance	Number
Long Term effective method	801
Safe	702
Fewer clinic visit	612
No action required by client	201
Previous satisfactory user	132
Reversible	402
Total	2850
Reasons for refusal	
Fear of complication	103
Family refusal	806
Partner stays in gulf	152
Adequate spacing with no method earlier	30
Another method	200
Total	1291

Table – 3: Complications, timing and rate of expulsion.

Complications	Number
Bleeding	33
Expulsion	6
Strings not visible	363
Pelvic infection	0
Pregnancy	1
Timing and rate of expulsion	
Within 7 days	0
Between 7 days and 4 weeks	4
After 4 weeks	2

Table – 4: Reason for removal of IUCD, continuation rate.

Reason for removal	Number
Bleeding	12
Menstrual disturbances	9
Pressure from family	3
Others including string problem	0
Pain in abdomen	2
Continuation rate	2745

Conclusion

We can conclude that inserting CuT 380A within 10 min after placental delivery is safe, effective with high retention rate. The skill of fundal placement can be easily learnt by providers. High level of acceptance can be anticipated by increasing awareness; the government needs to develop strategies through different media sources. With continuing training programs of PPIUCD from 2010 provider base with knowledge and skills is increasing. Better health with best future of Indian mothers and new borns should rise with this initiative of Government.

References

1. Satyavathi Maluchuru , V. Aruna, N. Prabhavathi. Post Partum – Intrauterine Device Insertion – 2yr Experience at a Tertiary Care Center in Guntur Medical College /Govt. General Hospital, Guntur. IOSR Journal of Dental and

- Medical Sciences (IOSR-JDMS), 2015; 14(3): 56-61.
2. Anjali Vivek Kanhere, Prachi Pateriya, Manisha Jain. Acceptability and feasibility of immediate postpartum IUCD insertion in a tertiary care centre in Central India. *International Journal of Reproduction contraception, obstetrics and gynaecology*, 2015; 4(1): 179-184.
 3. Mohamed SA, Kamel MA, Shabaan OM, Salem HT. Acceptability for the use of postpartum intrauterine contraceptive devices: Assiut experience. *Med Princ Pract.*, 2003; 12(3): 170-5.
 4. Thomas D, Maluccio J. Fertility contraceptive choice, and public policy in Zimbabwe. *World Bank Econ Rev.*, 1996; 10(1): 189-222.
 5. Grimes D, Schulz K, van Vliet H, et al. Immediate post-partum insertion of intrauterine devices: a Cochrane review. *Hum Reprod.*, 2001; 17(3): 549-54.
 6. Maternal and Child Health Integrated Program and PPF activities, WHO Report.
http://k4health.org/sites/default/files/PPFPMeetingReport_formatted.pdf
 7. Celen S, Moroy P, Sucak A, et al. Clinical outcomes of early post placental insertion of intrauterine contraceptive devices. *Contraception*, 2004; 69: 279-82.
 8. Blanchard H, Mac Kiag C. ACCESS-FP Program. 2006. Postpartum contraception:
http://www.k4health.org/sites/default/files/postpartumabortion_English.pdf
 9. Tatum HJ, Beltran RS, Ramos R, et al. Immediate post placental insertion of GYNE-T 380 and GYNE-T 380 postpartum contraceptive devices: randomized study. *Am J Obstet Gynecol.*, 1996; 175(5): 1231-5.
 10. Post-partum IUCD reference manual. New Delhi: Family Planning Division, Ministry of Health and Family Welfare, Government of India; 2010.