ORIGINAL ARTICLE

A Follow up Study Of 100 Clients of PPIUCD Insertion

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KEY WORDS : PPIUCD, Follow up, Complications

ABSTRACT

INTRODUCTION : During the postpartum period, women are highly motivated to initiate contraceptive use. Intrauterine device (IUD) insertion during this time period is ideal method for some women, as it does not interfere with breastfeeding, is convenient for both women and their healthcare provider. **AIMS & OBJECTIVES :** To study the percentage of acceptance out of all patients counseled about PPIUCD. To study the percentage of Types of insertions. To study over all complication rate of PPIUCD. **MATERIAL & METHODS :** These will be a follow up, prospective, single center study conducted at OBGY department, at our tertiary hospital. After taking permission from the institutional ethics committee and Head of department of OBGY, the investigator will attend labor room and wards of our tertiary hospital. **RESULTS :** In this study we found that incidence of expulsion is 7%, heavy vaginal bleeding in 5%, endometriosis in 1%, displacement in 1%, string not visualize 10%, removal in 12%. **CONCLUSION:** We can conclude that Inserting CuT 380 A by 10 min after placental delivery is safe and effective, has high retention rate. The expulsion rate was not high, and further can be reduced with practice.

INTRODUCTION

Taking advantage of the immediate post-partum period for counseling on Family planning Post-Partum Intrauterine Contraceptive Device (PPIUCD) is a good option as a contraceptive method. In developing countries, delivery is the only opportunity when the healthy women come in contact to the health care providers, and they may never return seeking contraception advice, so IUCD insertion during delivery may be the best scope.

During the postpartum period, women are highly motivated to initiate contraceptive use. Intrauterine device (IUD) insertion during this time period is ideal method for some women, as it does not interfere with breastfeeding, is convenient for both women and their healthcare provider. It is associated with less discomfort and side effects than interval insertions and allows women to safe, long acting, highly effective contraception while already within medical system1.

AIMS AND OBJECTIVES

- To study the percentage of acceptance out of all patients counseled about PPIUCD.
- To study the percentage of intra caesarean, immediate post placental and insertion within 48hours.
- To study over all complication rate of PPIUCD

Selection criteria :

Inclusion criteria :

Follow up cases of postpartum IUD acceptors

- Intra caesarean insertion
- Immediate post placental insertion (within 10 mins)
- Later post-partum insertion (10 mins to 48 hours)

Exclusion criteria :

- No exclusion criteria needed, all clients who accept PPIUCD insertion are included.

MATERIAL AND METHODOLOGY

- These will be a follow up, prospective, single center study conducted at OBGY department, at our tertiary hospital. After taking permission from the institutional ethics committee and Head of department of OBGY, the investigator will attend labor room and wards of our tertiary hospital.

  The clients are counseled about IUCD insertion and consent is taken on pre-determined consent form of

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our hospital. The clients who underwent IUCD insertion will be included for the study.

All women after proper counseling who desirous for IUCD included. Women having following complications were not underwent insertion :

Exclusion criteria for PPIUCD insertion :

- Fever during labor and delivery.
- Having active STD or other lower genital tract infection or high risk for STD.
- Known to have ruptured membranes for more than 24 h prior to delivery.
- Known uterine abnormalities e.g., Bicornuate/septate Uterus, uterine myomas
- Manual removal of the placenta.
- Unresolved postpartum hemorrhage or postpartum uterine atony requiring use of additional oxytocic agents.

Three types of insertion is included in study

1) Intra caesarean
2) Immediate post placental within 10 minutes of delivery.
3) Later postpartum from 10 minutes to 48 hours.

- The base line data like name of client, age of client, date of insertion, address of client mobile number of client, place of counseling, type of insertion are noted. Clients are counseled about follow up at 6 weeks and 6 months interval.
- Intra cesarean - IUCD insertion during cesarean section.
- Immediate post placental- IUCD insertion vaginally within 10 minutes of vaginal delivery.
- Later postpartum- IUCD insertion vaginally after 10 minutes to 48 hours of vaginal delivery.

On each follow up visit any complication if developed will be recorded. Complications like endometritis, peritonitis, septicemia, heavy bleeding, displacement, expulsion, perforation, ectopic pregnancy, pregnancy and any other complication will be recorded.

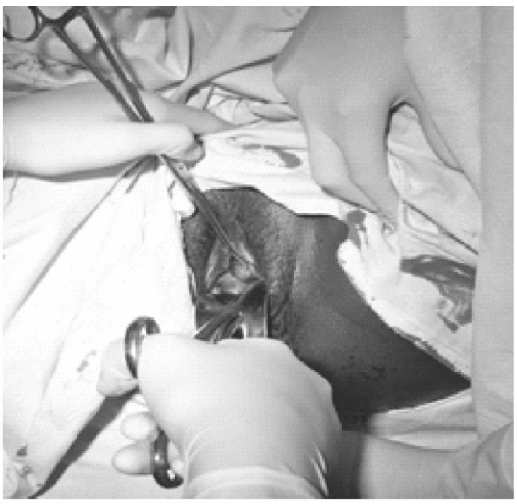
INSERTION TECHNIQUES

Post-Placental Insertion

All necessary instruments were arranged on an auxiliary table covered with a sterile drape. Insertion was performed by the consultant using modified Kelley placental forceps. Aseptic techniques were enforced throughout the procedure.

Sim's speculum was gently inserted into the vagina to visualize the cervix. The cervix and the vaginal walls were cleaned twice with cotton swabs soaked in povidone iodine solution with speculum in place. The anterior lip of the cervix was then gently grasped with the same ring forceps used earlier. The IUCD was grasped with the modified Kelley forceps using no-touch technique. Once it is inserted in to lower uterine segment, other hand was moved to abdomen; and placed over the fundus and uterus was pushed gently upward to reduce the angle and curvature between the uterus and vagina. IUCD with forceps was moved upward until it can be felt at the fundus. Then the forceps were opened to release the IUCD and swept to side wall. Uterus was stabilized until forceps removal was complete. The cervical os was then gently inspected for the strings. Sims speculum was removed. She was allowed to take rest for some time.

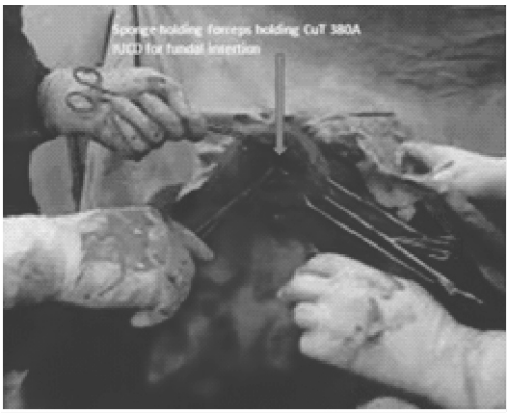
Post placental PPIUCD insertion



Intra-Cesarean Insertion of the IUCD

- Uterine cavity was inspected for presence of malformations following placental delivery, which would limit use of IUCD. Uterus is stabilized by grasping it at fundus. IUCD is Hold 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. Enough care was taken not to dislodge IUCD as hand is removed. Strings ware guided toward the lower uterine segment without disturbing IUCD'S fundal position. Enough Care was taken not to include IUCD strings during uterine closure [6,7].

Intra cesarean PPIUCD insertion



Prior to Discharge

- IUCD Client card, showing type of IUCD and date of insertion were prepared.
- She was informed about the IUCD side effects& symptoms.
- Woman was told when to return for IUCD follow-up/PNC/newborn checkup.
- She was advised to come back any time if she has warning symptoms,
- Foul smelling vaginal discharge
- Lower abdominal pain, fever or chills
- Pregnancy
- IUCD has fallen out.

RESULTS

Total number of 325 women were approached by me in my study and counseled. Out of these 112 women accepted (34.5%) PPIUCD insertion while 213 women declined insertion. Those women who inserted PPIUCD were followed up at 6 weeks and 6 months. Out of 112 women who accepted PPIUCD insertion 100 women completed follow up at 6 weeks and 6 months. Those women who were lost to follow up (12 women) are not included in the analysis.

During the study period of October 2015 to June 2017 at our tertiary hospital, total 4,094 women including this study population were counseled for PPIUCD and out of these 1,212(29.6%) women accepted PPIUCD insertion.

Table 1 shows distribution according to age group, according to this majority 50% are in age group of 20-25 years, and minority 3% are in age group >35 years.

Table: 2 show distribution according to parity of the patient. According to this majority of the women are primiparas (45%). Grand multiparas are minority (2%). (39%) women have second parity.

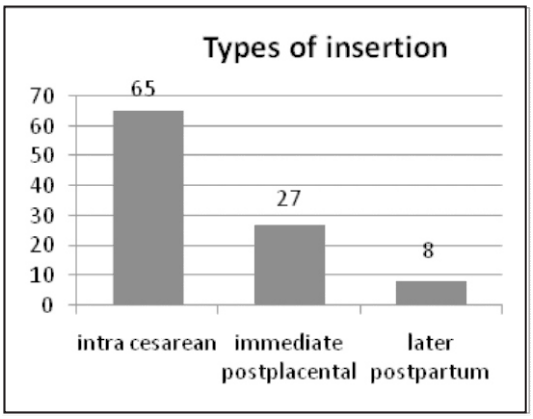
Table: 1

Age	Accepted	Declined	Total
< 19years	4(4%)	9(4%)	13(4%)
20-25years	50(50%)	126(56%)	176(54.1%)
26-30years	32(32%)	68(30.2%)	100(30.7%)
31-35years	11(11%)	19(8.4%)	30(9.2%)
>35years	3(3%)	3(1.3%)	6(1.8%)

Table: 2

Parity	Accepted	Declined	Total
1	45(45%)	101(44.9%)	146(44.9%)
2	39(39%)	86(38.2%)	125(38.4%)
3	12(12%)	29(12.9%)	41(12.6%)
4	2(2%)	6(2.6%)	8(2.4%)
>4	2(2%)	3(1.3%)	5(1.5%)

Figure: 1 shows the types of insertion of PPIUCD.



According to this majority of insertion occurred in intra cesarean (65%).

Table : 3

Place of counseling	Accepted	Declined	Total
Antenatal in OPD	42(42%)	88(39.1%)	130(40%)
Antenatal in ward	6(6%)	10(4.5%)	16(4.9%)
Prelabour	52(52%)	127(56.5%)	179(55.1%)

Table: 3 shows acceptance of PPIUCD according to place of counseling. According to this majority of women are counseled during prelabour (52%), and minority in antenatal ward (6%).

Table-4 : Show distribution of complications according to type of IUCD insertion.

	Intra cesarean (65)	Immediate post placental (27)	Later postpartum (8)	Overall percentage (100)
Endometritis	0	1(3.7%)	0	1%
Peritonitis	0	0	0	0
Septicemia	0	0	0	0
Heavy vaginal bleeding	2(3.07%)	2(7.4%)	1(12.5%)	5%
Displacement	1(1.5%)	0	0	1%
Expulsion	3(4.6%)	3(11.1%)	1(12.5%)	7%
Perforation	0	0	0	0
Ectopic pregnancy	0	0	0	0
Pregnancy	0	0	0	0
String not visible	7(10.7%)	2(7.4%)	1(12.5%)	10%
Removal	6(9.2%)	5(18.5%)	1(12.5%)	12%

Figure: 2 Shows complications in women at time of 6 weeks follow up.

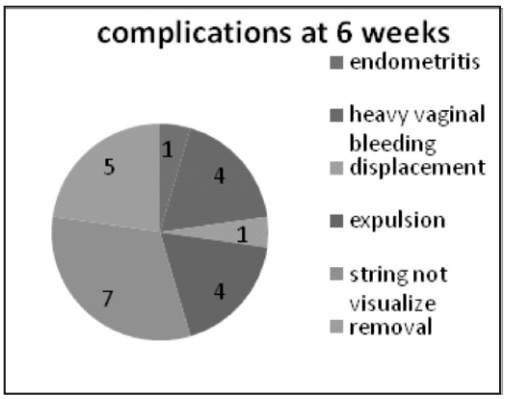
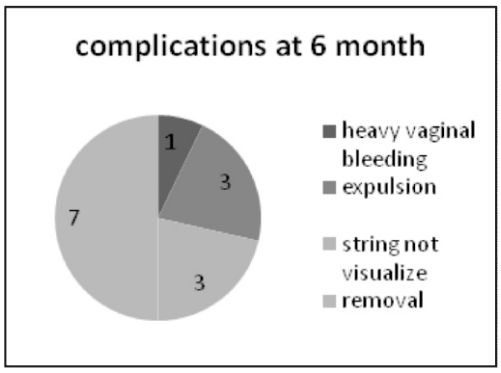


Figure-3 : Shows complications in women at time of 6 months follow up.



DISCUSSION

In this study total 325 clients were counseled for PPIUCD. Out of these 325 clients 112 clients accepted PPIUCD insertion. This is about the 34.5% of the total client counseled. A comparable finding was reported in the study conducted in Egypt, where 28.9% clients accepted IUD insertion4. Acceptance rate depend upon primary education of clients, involvement of partner in counseling process and many other social factors. In this study majority of the clients who underwent IUD insertion were in age group of 20-25 years of age. This is 50% of the total women involved. Minority of the women (3%) were above 35years of age. Age distribution depends on many socioeconomic factors, local population trend of childbearing. In this study 45% of the women are primiparas and 55% are multipara. These findings are comparable to the study by Grimes et al5, where they found higher acceptance in multiparous clients (65.1 %).

In this study 7% women undergo expulsion. This was similar to a multi country study done in Belgium, Chile, and Philippines which showed the rate of expulsion at 1 month ranging from 4.6 to 16.0 % . 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 up2. The expulsions were significantly higher in post placental IUCD insertion after vaginal deliveries as compared to caesarean insertion.

Gupta et al. also reported lower expulsion after intra caesarean insertion8. Expulsion rate in this study in vaginal group is 8.8% and in intra cesarean group is 4.6%. Celen S et al. in 2004 found that the 1- year cumulative expulsion rate with IUCD was 12.3% in early post placental insertion3. Another study in 2011 found 17.6% expulsion rate in intra cesarean IUCD insertion 9. Lower expulsions were found when IUCD was inserted within 10 minutes than 10 minutes to 48 hours of delivery in a systemic review by kapp N et al10.

In present study, no case of perforation occurred in interval or postpartum group. The possible reason for low perforation rate in post placental insertion is due to thick uterine wall and inserter's expertise. In accordance to our study, no perforations were reported in post placental IUD insertion in the studies done by Kapp et al and Gupta G et al which matches our study8,10.

The present study showed continuation rates of about 88% for PPIUCD users over a follow up period of 6 months. At the end of 6 month total 12% women underwent removal. Out of 12 women who underwent removal 5(41.6%) women have complain of heavy vaginal bleeding. Other 4(33.3%) women have complained of lower abdominal pain. Other 3(25%) women have no specific reasons for removal. Celen et al also showed continuation rates of 87.6% for PPIUCD at 6 months' interval3.

In this study 1% developed endometritis (PID) which is comparable to Eroglu et al reported genital infection in 1.3% women in post placental copper T 380A insertion11. No cases of peritonitis or septicemia or other major infection were noted.

In this study 10% women had string related problem, among those 8% were found string at cervical canal. Rest 2% needed USG confirmation that IUCD were in situ, but string only was upwardly turned. In this study 10.7% of intra cesarean and 13.3% of vaginal insertion have string related problem.

CONCLUSION

The acceptance of PPIUCD was high in the present study, and it is comparable to other studies done globally. Awareness of the PPIUCD among these women was very poor despite high acceptance. Majority of the women never heard about the PPIUCD before admission to labor room.

The PPIUCD was demonstrably safe, having no reported incidence of perforation, peritonitis, septicemia or any other major problems. In this study expulsion rate is 7% which is low. Major problem in this study is string problem, which includes 10% of women. String problem leads to client anxiety and frequent follow up for confirmation of CuT in situ with ultrasonography. Heavy vaginal bleeding is seen in 5% women, which is comparable to another studies and not vary significant. Removal rate is 12% with continuation rate is 88% which is very good.

We can conclude that Inserting CuT 380 A by 10 min after placental delivery is safe and effective, has high retention rate. The expulsion rate was not high, and further can be reduced with practice. With the high level of acceptance despite low levels of awareness, the government needs to develop strategies to increase public awareness of the PPIUCD through different media sources. It is also important to arrange for training on PPIUCD in order to increase knowledge and skills among healthcare providers. This will also further promote PPIUCD use and aid in reduction of the expulsion rates.

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