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Original Research Article

Study of efficacy and complication of postpartum IUCD insertion at Govt. medical college, Bastar

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ABSTRACT

Background: This study is aimed at determining the safety, efficacy and expulsion of PPIUCD. This study also aims to determine the rates of complications (bleeding, pelvic infection, lost strings, and displacement) following PPIUCD insertion among the women in one year period.
Methods: This study was conducted at department of obstetrics and gynecology, Late B.R.K.M Govt. medical college, Jagdalpur, Chattishgarh. Women admitted and delivered were counseled and those who fulfilled the medical eligibility criteria and had no contra indication for PPIUCD were provided the PPIUCD services.
Results: Total women 600, lost to follow-up 329, complications 162 (expulsion 14, bleeding 35, string problem 44), removal 102.
Conclusions: The PPIUCD (Cu380A) is demonstrably safe, effective, has high retention rate. The expulsion rate is not very high and it can be reduced with correct techniques, correct selection of clients, and correct time selection for the client.

Keywords: PPIUCD- Post partum intra uterine contraceptive device

INTRODUCTION

In India current method of family planning is (1) Family sterilization 34% (2) Male sterilization. 1% (3) pills 4% IUD 2%and condom 6% (4) any traditional method 7% (5) non user 46%. The modern IUCD is highly effective, safe, long acting, coitus independent and rapidly reversible method of contraception with few side effects. It is most cost effective method of contraception today. Many women also find the IUCD to be very convenient because it requires little action once it is in place.[1]

The postpartum period is potentially an ideal time to begin contraception women are more strongly motivated to do so at this time, which also has the advantage of being convenient for both patients and healthcare providers.[2] Postpartum period is a very vulnerable period both for women and infant. Initiation of contraception during this period is important to prevent unintended pregnancy and short birth intervals. It can avert more than 30% of maternal deaths and 10% of child mortality. Pregnancy occurring within six months of the last delivery holds a 7.5-fold increased risk for induced abortion and a 1.6-fold increased risk of stillbirth.

In India postpartum IUCD program is started by Family planning division of Ministry of Health and Family Welfare under Janani Shishu Suraksha Yojana, National Rural Health Mission in association with Bill and Melinda Gates Foundation, Norway.

India Partnership Initiative, JHPIEGO (India), USAID and Packard. The Government of India supplies CuT380A free of cost in all government institutes.

This study was conducted to evaluate the safety and efficacy of Immediate Postpartum Intra Uterine Contraceptive Device (PPIUCD) insertion in women delivering vaginally or by caesarean section.

Aims and objectives

- To motivate the patient for Contraception
- To determine proportion of women accepting immediate PPIUCD insertion
- To study retention rate of postpartum IUCD
- To find out various complications of postpartum IUCD
- To study failure rate of Postpartum IUCD
- To study the expulsion rate of postpartum IUCD

METHODS

Design of the study was prospective.

Period of study

Cases were taken between January 2015 to June 2015 and they were following up till June 2016.

Sample size

Total number of women who opted PPIUCD during January 2015 to June 2016 i.e. 600.

Study group

Women's delivering in the hospital fulfilling inclusion criteria was included in the study after obtaining informed consent. The study protocol was approved by the ethics committee.

Inclusion criteria

All antenatal patients admitted for delivery to our hospital were counseled for PPIUCD. Consent was obtained from those, who opted for insertion; among those who fulfilled the following criteria were considered for inclusion.

- Age greater than or equal to 18 years
- Those who do not have any contraindications for IUD insertion.

Exclusion criteria

According to medical eligibility criteria for IUCD by WHO,

- Fever during labour and delivery (Temp >380c)
- Having active STD and other genital tract infection or high risk for STD
- Known to have ruptured membranes for >18 hrs prior to delivery
- Known uterine abnormalities ef. Bicornuate/septate uterus, uterine myomas
- Manual removal of the placenta
- Unresolved postpartum hemorrhage (PPH) requiring use of additional oxytocic agents in addition to AMTSL.

After selecting the women who fulfilled the eligibility criteria, detailed medical, obstetrical and gynecological history was taken and complete general physical as well as pelvic examination was done and the findings were recorded in the pre-designed Performa. The procedure was carefully explained to the women to make her as comfortable as possible.

In study group, Copper-T was inserted within 10 minutes of expulsion of placenta up to 48 hours postpartum in normal vaginal delivery, using Kelly's placental forceps and intracesarean insertion taking all aseptic precautions by standard technique. PPIUCD insertion is done on a delivery table, with adequate privacy for the woman and lighting for the service provider, with proper aseptic precautions. The following instruments and supplies are required for the postpartum insertion of IUCD. All the instruments are either sterilized or high level disinfected before use.

RESULTS

Table 1: Age distribution.

Age in years	Mean±SD	N	%
18-20	19.67±0.6	88	14.67
21-25	23.29±1.45	236	39.33
26-30	28.12±1.6	219	36.5
31-35	33.58±1.51	50	8.33
>35 Years	37.86±1.86	7	1.17
Total	25.55±4.32	600	100

Out of 600 cases, majority of patients belonged to 21-25 years age group (39.33%). Mean age of women accepting the PPIUCD was 25.55±4.32 year.

Majority of the patients opting for postpartum IUCD were primigravida and second gravid patients comprising of 68.17% i.e. 409 patients (Table 2).

Table 2: Parity.

Parity	N	%
Primi	216	36
Two	193	32.17
Three	113	18.83
≥Four	78	13

Out of the 600 IUCD inserted, 66.5% (399) were inserted after vaginal delivery and 33.5% (201) were kept intracesarean. In intracesarean majority were primigravida (Table 3).

Table 3: Mode of delivery.

MOD	N	%
Vaginal	399	66.5
LSCS	201	33.5

Table 4: Timing of insertion.

Timing of Insertion	N	%
POST Placental	306	51
Postpartum≤48 hrs	95	15.83
Intracesarean	199	33.17

Maximum number of IUCD i.e. 306 (51%) were inserted post placental, followed by intracesarean 199 (33.17%) and 95 (15.83%) were inserted postpartum (≤48 hrs).

Out of 600, total follow up cases were 271, in follow up cases following complication were seen.

Table 5: Complication.

Complication	N	%
No complication	109	40.22
Pain	43	15.87
Bleeding	35	12.92
Discharge	26	9.59
Missing thread	44	16.24
Expulsion	14	5.17
Perforation	-	-

Reason for removal: During follow up 102 PPIUCD were removed.

Table 6: Reason for removal.

Reason for removal	N	%
Pain	8	7.84
Infection	6	5.88
Bleeding	18	17.65
Self-expulsion	10	9.8
For conceiving	13	12.75
For tubal ligation	23	22.55
Vague causes	24	23.53

In the study it was observed that out of 102 CuT removed, maximum number of CuT removed was due to vague causes i.e. 24 (23.53%) and 17.65% removal were due to bleeding per vaginum. 36 CuT were removed for nonmedical reasons i.e. for future conceiving and for tubal ligation.

DISCUSSION

During study period, 1959 women were delivered in our setup. All were counselled for IUCD insertion. Out of which 600 PPIUCD were inserted. i.e. 30.6% consented for insertion.

In present study the mean age of IUCD seekers was 25.55±4.32years which is similar to study by shah et al.[3]

In present study when compared with other parity groups, acceptance of the PPIUCD was higher among primiparous (36%). Similar finding was reflected in the study done by safwat et al in Egypt, where 30% of primiparous accepted the use of PPIUCD compared to 15% of grand multiparous.[4]

In present study intracesarean insertion rate is 33.5 % which is only 9.2% in shah et al.[3]

Out of 600, total follow up cases were 271. Follow rate was 45.2 % in one year. This finding is contrary to that found in Morrison et al' i.e. 69%; 66% in 6month and one year and that found in Shah et al, i.e. 82.6% at 6 months, 50.8% at 1 year interval.[3,5] These findings indicate a poor integration of vertical programs at all levels. "Insert and report and then forget" needs to be replaced by "Counsel and report, insert and report, and follow up and report" and of course provide service every time. This hospital is providing service to people around 200km of area so the patient once taken services do not report back for follow up. They might take follow up services in nearby PHCs and CHCs.

Maximum number of IUCD i.e. 306 (51%) were inserted post placental, followed by intracesarean 199 (33.17%) and 95 (15.83%) were inserted postpartum (≤48 hrs).

In shah et al Maximum number of IUCD i.e. 128 (51.2%) were inserted in immediate postpartum period, followed by postplacental 99 (39.6%) and 23 (9.2%) were inserted intra caesarean.[3]

94 (16.24 %) among those inserted with PPIUCD had lost strings during first follow-up. Strings were found at cervical canal or needed ultrasound and confirmed that the IUCD were in situ. Missing thread rate was 8.69 % seen in study by Mishra Sujnanendra.[6]

In the present study the incidence of abnormal bleeding was 12.92%. Like other studies bleeding out numbers other complications.[7]

Expulsion rate in our study is 5.17 %. This was similar to a multicountry study done in Belgium, Chile and Phillippines which showed the rate of expulsion at 1 month ranging from 4.6 to 16 %.[8]

In present study 9.59 % complain of discharge per vaginum. The study by Morrison et al had lower rates of pelvic infection in Kenya (1%) and in Mali (2%).[5]

Husband and other family member's pressure for IUCD removal for vague reason was a significant reason (23.53%) for removal next to bleeding and menstrual disturbance, these findings emphasize the important of involving the husband in prenatal counselling.

It speaks of the importance of knowledge and motivation prior to insertion in continuing PPIUCD.

CONCLUSION

The insertion of immediate postpartum IUCD is safe and effective in the means of complications. Though it was a new concept for the population it was well accepted by community. The expulsion rates were though higher than the conventional

Interval method postpartum IUCD but it is also equally effective in regards of proper counselling, maintaining strict aseptic precautions and with proper insertion technique.

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. We have to give more emphasis on follow up by counselling patients.

Cash incentives to the accepter, motivator and of course provider which has been started by our government would bring about a substantial progress in the PPIUCD use in developing countries like India.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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