

Evaluation of Acceptability, Safety, and Expulsion Rate of Post Placental and Intra Caesarean Insertion of Intrauterine Contraceptive Devices (PPIUCD)

Dr. S. Mallika¹, Dr. S. Valarmathi²

¹Main Author, Associate Professor, Government Medical College, Sivagangai – 630561, Tamil Nadu, India

²Corresponding Author, Assistant Professor, Government Medical College, Sivagangai – 630561, Tamil Nadu, India

Abstract: *Objective of the study is to describe the factors associated with acceptability of immediate ppiucd insertion in women according to their socio demographic and obstetrics characteristics and to determine the rates of uterine perforation, expulsion, pelvic infection, lost rings among study population*

Keywords: Contraception, Complications, Intra caesarean Insertion

1. Introduction

The modern iucd is a highly effective, safe, long acting, coitus independent & rapidly reversible method with fewer side effects. Till 2 years of delivery a woman will not be ready physically to conceive & delivery. Studies were found that conceiving within 2 yrs leads to abortion, pph, preterm labour, LBW Babies, fetal loss sometimes maternal death. So practicing contraception within postpartum period to avoid such complications & promote maternal health. Lack of information & fear of complications are the common reasons for unmet need

2. Objectives

- To study the socio demographic profile of parturients attended to obstetric ward for delivery
- To assess the acceptability, safety of IUCD among study population

3. Materials and Methods

Study Design: The study was a cross sectional hospital based analytical study to assess acceptability & safety of ppiucd use in women after delivery

Study Setting: The study was conducted in Govt. Sivagangai Medical College Hospital, Sivagangai, a tertiary teaching hospital, Tamilnadu, India.

Study Period: Six Months period from January 2018 to May 2018

Study Population: The study population include all women who delivered at govt. sivagangai medical college maternity ward during the study period.

Inclusion Criteria: Women delivering vaginally or caesarean section, counseled for IUCD insertion in prenatal period or in labour.

- 18-45 years old
- GA 36-40 weeks

- Hb > 8 g/dl
- No infections
- desire to have cu-t after counseling

Exclusion Criteria

- Fever during labour & delivery
- ruptured membranes for more than 24 hrs prior to delivery
- uterine anomalies
- unresolved PPH
- having active STD or other lower genital tract infections
- manual removal of placenta

4. Insertion Techniques

Post Placental Insertion

After obtaining written consent from acceptors, IUCD was inserted after 3rd stage of labour cautiously & aseptically into the fundus of uterus.

Intra Caesarean

IUCD was inserted directly into uterine fundus after delivery of placenta, then incision was closed.

Later Prior To Discharge

- Woman was informed about side effects (foul smelling vaginal discharge, excessive bleeding, feeling of being pregnant, lower abdominal pain)
- She was told about when to return for follow up, PNC.

5. Results

Mean age of acceptance 23.70 ± 2.95 [86.58%]. Majority were from rural area (87.43%). Introduction of JSY has increased institutional deliveries among rural people. IUCD is very useful for women who have limited access to medical care. Acceptance was more in those who completed their secondary level education (58.14%). Primiparous women were high acceptors (69.94%) than multiparous women and more acceptancy was observed among women who had at least one delivery (27.50%) compared to >2 deliveries (2.37%).

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| Variables | Accepted (N=1178) | Percentage |
|-----------------------|-------------------|------------|
| Age | | |
| <20 yrs | 83 | 7.04% |
| 20-29yrs | 1020 | 86.58% |
| >30yrs | 75 | 6.36% |
| Education | | |
| Primary | 139 | 11.79% |
| Secondary | 685 | 58.14% |
| Degree | 354 | 30.05% |
| Illiterate | Nil | Nil |
| Locality | | |
| Rural | 1030 | 87.44% |
| Urban | 148 | 12.56% |
| Parity | | |
| P1L1 | 824 | 69.95% |
| P2L2 | 325 | 27.58% |
| P3L3 | 28 | 2.37% |
| MORE | 1 | 0.08% |
| Religion | | |
| Hindu | 1138 | 96.60% |
| Muslim | 13 | 1.10% |
| Christian | 27 | 2.29% |
| Socio economic status | | |
| Lower | 587 | 49.80% |
| Middle | 536 | 45.50% |
| upper | 55 | 4.70% |
| Family Status | | |
| Nuclear | 675 | 57.30% |
| Joint | 503 | 42.70% |

In this study women undergoing caesarean section (57.97%) were more accepting than who delivered by normal vaginal delivery(42.01%).

| Mode of delivery | Accepted | Percentage |
|-------------------------|---------------------|------------|
| Caesarian section | 683 | 57.97% |
| Normal vaginal delivery | 495 | 42.03% |
| | (Post placental=289 | 24.53% |
| | Post partum=206) | 17.48% |

Almost all non acceptors (92.59%) told they were interested in oral contraceptive pills. A [4.71%] people preferred barrier methods.

Reasons for Non-Acceptance

| Reasons | Frequency | Percentage |
|------------------------------------|-----------|------------|
| Don't want immediate contraception | 73 | 10.43% |
| Partner not accepted | 121 | 17.17% |
| Interested in other methods | 451 | 63.97% |
| Fear of complications | 33 | 4.37% |
| Religious belief | 28 | 4.07% |
| Total | 706 | 100% |

Preferred Methods by Non Acceptors

| Methods | Frequency | Percentage |
|---------------------|-----------|------------|
| Contraceptive pills | 653 | 92.59% |
| Tubectomy | 13 | 1.67% |
| Coitus interruptus | 7 | 1.01% |
| Male condoms | 33 | 4.71% |
| Total | 706 | 100% |

Majority(67.12%)of acceptors told that they accepted iucd because it is a reversible method.A(19.17%) accepted because it is long acting temporary contraceptive method.

Reasons for Acceptancy

| Reasons | Frequency | Percentage |
|--------------------|-----------|------------|
| Reversible | 791 | 67.12% |
| Long acting | 225 | 19.17% |
| Safe | 80 | 6.8% |
| Less repeatability | 65 | 5.47% |
| Non hormonal | 17 | 1.3% |
| Total | 1178 | 100% |

Out of 1178 accepted woman 344 were lost to follow up after 6 months. Main reported complications were pain abdomen (17.14%), bleeding (14.28%), expulsion rate (3.8%). Most common reason for removal of IUCD is inclination to other methods. Complications among the clients in the study

| Complications | Frequency | Percentage |
|-----------------------|-----------|------------|
| Pain | 200 | 17.14% |
| Bleeding | 164 | 14.28% |
| Expulsion | 47 | 3.8% |
| Strings not visible | 129 | 11.29% |
| Pelvic infection | 0 | 0 |
| Pregnancy Perforation | 0 | 0 |

Reasons for removal of PPIUCD

| Reasons | Frequency | Percentage |
|------------------------------|-----------|------------|
| Bleeding/discharge | 23 | 30.4% |
| Pain | 16 | 20.3% |
| Family pressure | 15 | 20.28% |
| Not willing to continue | 4 | 5.3% |
| Changes in menstrual cycle | 8 | 10.2% |
| Switch over to other methods | 11 | 13.52% |
| Total | 77 | 100% |

Continuation rate in the study after followup(six months)

| Total insertions =1178 | | |
|------------------------|-----|--------|
| Total followedup | 834 | 70.80% |
| Expulsion | 47 | 3.98% |
| Removal | 77 | 6.53% |
| Continuation | 710 | 60.27% |

6. Discussion

Present study was conducted among 1178parturients to assess their acceptability, feasibility and complications at tertiary care hospital towards postpartum insertion of IUCD. After taking consent out of 1884,1178 women were accepted and 706 were declined.

Socio-Demographic Obstetric Features: Acceptability

Mishra S et al., conducted a study in Odisha district head quarters hospital found 17.17% of acceptance and 82.42% were declined for postpartum IUCD insertion [7]. Anjali et al., found 36% acceptance [4], Gunjan goswamy at al., found 66.6% acceptance [8]. Vidyaramana et al., found 8.55% acceptance [9]. So much of variation in acceptance was found across country may be due to different study settings. Locality and diversity in socio-demographic characters

Education

Mishra S et al., found high acceptancy among women to completed their primary and secondary school education [7] Anjali et al., found women who completed primary & secondary school level had high acceptancy [25%&38%]

compare to illiterates [13%] [4]. Gunjan goswamy et al., also found more acceptors were women who completed secondary school education [49%] compare to primary school [23%] Vidyaramana et al., found more literacy will lead to acceptancy [15.7%] compare to illiteracy [5.3%] [9]. Above studies and current study reiterates that educational status has definitely high influences in acceptancy

Socio-Economic Status

Satyavathi et al., found acceptance was high among low socio economic group [67%] [10]. Gunjan goswamy found lower income people were high acceptors [62%][8]

Current study also found similar results it may be because study was conducted in government tertiary care hospital where majority services receivers are low socio economic people.

Parity : Mishra S et al., found high acceptance among primi gravid women [20.7%][7].

Vidya ramana et al., found 15.47% acceptors were primis gravid women.

Anjali et al., found 48% primi gravid women are acceptors compared to multiparous [27%] women [4].

Majority studies found similar results to current study this is because IUCD is temporary method that is the reasons for acceptancy among primi parous women.

Deliveries

People who had atleast one delivery has high acceptancy to IUCD compared two and more. Mishra et al.,[7] and Sathyavathi et al., [10] found similar results.

Mode of delivery:

Manju shukla et al., found 60.87% acceptors were who underwent ceasarean sections. It is almost equal to our study [11]. Vidhya ramana et al., found 83.73% of acceptors were people who had caesarean section and 16.2% acceptors were people underwent vaginal delivery [9]

Reason for not Accepting IUCD

Sathyavathi et al., found in their study ,majority were preferred another family planning method {46.68%}, followed by fear of complications {32.89%}, and due to family refusal in Gunjan goswamy et al., study were fear of complications {41%}, not accepted by partner {35%} ,22% were inclined to other methods 5% not had any reason and 1% declined on religion basis {8}

Anjali et al., found 32% want another method of contraception ,18% had fear of complication, 8% not specified any reason to refusal of IUCD [4]. priya et al., found husband was the main reason for not accepting IUCD [12]

In our study ,we found majority non-acceptors [63.97%] were interested in other methods followed by 17.7% were told partner was not interested .on religious basis 4.04% were declined IUCD just 4.37% had fear of complications. partner or family members are playing

important role in decision making. Educating family members may increase the acceptancy.

Reasons for Acceptance

Satyavathi et al., found reasons for Accepting IUCD were long acting [55.28%], 20.73% thought it is safe [10]. study done by Anjali et al., found 28% because people it is long acting ,20% accepted IUCD because it needs few follow up visits ,17% because it is reversible, 10% accepted by stating that safe and non hormonal and 11% accepted because attention needed to check [4].

In our study, we found majority [67%] accepted because it is a reversible method , 19.7% thought it is long acting different views found in different study but majority studies stated that people accepting IUCD because it is long acting and safe

Reasons for Removal

Mishra S et al., found expulsion rate 6.4% at 6 weeks .A 23.05% participants were lost follow up [7]. Gunjan goswamy et al., found expulsion rate was 10% and 30% lost follow up .In their Study bleeding/discharge [30%], abdominal pain [20%], family pressure [20%], just did not want to continue 5% were the reasons for removal of IUCD in the follow up [8]

Vidya ramana et al., observed high follow up [93%]. very minimal percentage expelled and went for removal due to complications like pain and discharge [9].

Satyavathi et al., found reasons for removal were bleeding [27.27%] menstrual disturbances [18.18%] pressure from family [27.27%] other problems [18.18%] and pain [9%][10].

Majority studies including current study observed pain and discharge were main problems for removal of IUCD

7. Conclusion

Acceptance of PPIUCD was low among uneducated ,middle and higher socioeconomic group in order to meet unmet need and control of population. If health education and health promotion activities and counseling to family members including spouse vigorously done acceptance will definitely increase .acceptance of any family planning after post partum period upto 2 years will greatly increase the physical and mental health of women .

Strategies to improve current scenario: 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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