

ORIGINAL RESEARCH

Profile of women who underwent post placental insertion of IUCD at a tertiary care hospital

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ABSTRACT

In developing countries, delivery may be the only time when a woman comes into contact with health care provider. Family planning program conductors should use the opportunity of the antepartum period for counselling and immediate postpartum period for IUCD insertion for those who are willing. Cases of women undergoing Cu T insertion post placental either after vaginal delivery or intra-caesarean at hospital were taken. Follow up at 6 weeks was done on outpatient basis. Cu-T 380 A and Cu-T 375 was used in this study for all women, which was supplied free of cost by the Govt. of India. Out of 100 sample patients; 72(72.0%) of patients gestational age was 38+ to 40 weeks. Since the labour incidence is more during 38+ to 40 weeks, the incidence of acceptance in that group was high i.e., 72%. The rate of acceptance beyond 40 weeks was 15% since there is a higher incidence of meconium stained amniotic fluid in postdated pregnancies. Out of 100 patients 73; (73.0%) of patients mode of delivery was caesarean section and 27 (27.0%) of patients mode of delivery was vaginal delivery.

Key words: Profile of women, post placental insertion of IUCD, CuT

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INTRODUCTION

Insertion of intrauterine device (IUCD) at 10 minutes after delivery is appealing for several reasons ^{1,2}:

- In developing countries, delivery may be the only time when a woman comes into contact with health care provider. Family planning program conductors should use the opportunity of the antepartum period for counselling and immediate postpartum period for IUCD insertion for those who are willing.
- The woman is also likely to have a high motivation for accepting contraception, and the healthcare centre provides a convenient setting for insertion of IUCD.
- Resumption of ovulation can be unpredictable after delivery, and an IUCD provides highly effective contraception during the puerperium⁴. Studies till date have not shown IUCDs to interfere with lactation.

Postpartum IUCD insertion has been recommended since 1967. Since then number of studies and clinical trials have been published which studied expulsion

rates and complications with respect to timing of insertion (immediate v/s delayed), method of insertion (manual v/s instrumental) and comparison of post placental insertion following vaginal delivery and caesareans. Nonetheless, up to now, these trials provide the available evidence on the safety and feasibility of inserting IUCDs immediately after childbirth⁸ and it was considered that more research in these areas is needed ³. This is especially true since there are both advances and new understandings about IUCDs in terms of acceptability, low expulsion rates and cost effectiveness. Recent studies indicate that the expulsion rate is minimal if IUCD is inserted by the proper technique by a trained provider and is placed at the fundus, when inserted within ten minutes of placental expulsion in vaginal deliveries. The trial comparing hand with instrument insertion of Cu-T 380A IUCDs found both techniques to be comparable. Six month expulsion rates per 100 women were 13.3 for hand insertion and 12.7 for instrument insertion. No pregnancies, perforations, secondary PPH, subinvolution or infections occurred ⁴.

METHODOLOGY**STUDY DESIGN:** Prospective Interventional Study.**SAMPLE SIZE:** 100.**INCLUSION CRITERIA**

All parous women irrespective of age who underwent Caesarean section or normal vaginal delivery.

EXCLUSION CRITERIA

- i) PROM of >18 hours.
- ii) Hemoglobin <8g/dl.
- iii) Chorioamnionitis.
- iv) Congenital malformations of uterus.

- v) Any bleeding disorder or unknown cause of vaginal delivery.
- vi) Diabetes mellitus.
- vii) Fibroid uterus.
- viii) Previous ectopic pregnancy.
- ix) Cardiac disorders.

Cases of women undergoing Cu T insertion post placental either after vaginal delivery or intra-caesarean at hospital were taken. Follow up at 6 weeks was done on outpatient basis.

Cu-T 380 A and Cu-T 375 was used in this study for all women, which was supplied free of cost by the Govt. of India.

RESULTS**Table 1: Distribution of patients according to age**

Age in years	Number of patients	Percentage
≤ 20	10	10.0
21-25	51	51.0
26-30	29	29.0
≥ 31	10	10.0
Total	100	100.0
Mean ± SD	25.37 ± 4.05	

Study observed that, maximum number of patients 51 (51.0%) belongs to the age group of 21-25 years, followed by 29 (29.0%) of patients belonged to the age group of 26-30 years, each 10 (10.0%) of patients belonged to the age group of ≤20 and ≥30 years

respectively.

The minimum age of patient was 19 years and maximum age was 38 years.

The mean age of patients was 25.37 years.

Table 2: Distribution of patients according to socio-economic status

S E status	No. of patients	Percentage
Upper class	0	0.0
Upper middle class	26	26.0
Middle class	29	29.0
Lower middle class	41	41.0
Lower class	4	4.0
Total	100	100.0

Study observed that; maximum number of patients 41 (41.0%) belonged to the lower middle class socio-economic status.

Followed by 29 (29.0%) of patients who belonged to middle class socioeconomic status.

Table 3: Distribution of patients according to parity

Parity	No. of patients	Percentage
Primipara	35	35.0
Multipara	65	65.0
Total	100	100.0

In the study majority of patient's 65 (65.0%) patients were multigravida.

Table 4: Distribution of patients according to associated medical disorders

Associated medical disorders	No. of patients	Percentage
Gestational Hypertension	6	6.0
Hypothyroidism	6	6.0
No co-morbidities	88	88.0
Total	100	100.0

Study observed that; 6 (6.0%) of patients were seen with medical disorder of hypertension and 6 (6.0%) of patients were seen with hypothyroidism.

Table 5: Distribution of patients according to gestational age

Gestational age	No. of patients	Percentage
36+ to 38 weeks	13	13.0
38+ to 40 weeks	72	72.0
> 40+ weeks	15	15.0
Total	100	100.0

Study observed that; out of 100 sample patients; 72(72.0%) of patients gestational age was 38+ to 40 weeks. Since the labour incidence is more during 38+ to 40 weeks, the incidence of acceptance in that group

was high i.e., 72%. The rate of acceptance beyond 40 weeks was 15% since there is a higher incidence of meconium stained amniotic fluid in postdated pregnancies.

Table 6: Distribution of patients according to mode of delivery

Mode of delivery	No. of patients	Percentage
Vaginal Delivery	27	27.0
Caesarean section	73	73.0
Total	100	100.0

Out of 100 patients 73; (73.0%) of patients mode of delivery was caesarean section and 27 (27.0%) of patients mode of delivery was vaginal delivery.

DISCUSSION

The present study was conducted to study rate of complications like pain, bleeding, infection following PPIUCD insertion among acceptors till 6 weeks and to study proportion of women accepting immediate PPIUCD insertion and also to study the safety, efficacy & expulsion rate till 6 weeks of PPIUCD insertion.

PPIUCD immediately following delivery presents a convenient opportunity for postpartum women to obtain a long acting method of contraception with the advantages of high motivation, assurance that the woman is not pregnant, and convenience and only a few contraindications to method.

Given the low rate of return for interval insertion, immediate placement may be preferable. This is more applicable for developing countries where delivery may be the only time when a healthy woman comes into contact with health care providers and the chances of returning for contraceptive advice are uncertain⁵.

There is no effect on breastfeeding & inserting IUCD in the immediate postpartum period saves time for both the woman & the provider, as the procedure is conducted in the same setting & involves only a few minutes of additional time.

In present study, total 520 patients were counselled for PPIUCD insertion of which 100 patients opted for insertion according to which acceptance rate is 19.2%. Patients were followed up till 6 weeks and examination along with a USG pelvis was done and satisfaction score of the patients was noted.

Timing of insertion, counseling and provider training are important factors for IUCD insertion in

postpartum period as quoted in United Nations Population Information Network (UN-POPIN) report. Of these, the timing of insertion is important as it influences the risk of expulsion⁶.

During the postpartum time period, women are often highly motivated to initiate contraceptive use. Intrauterine device (IUD) insertion during this time period is an ideal method for some women, as it does not interfere with breastfeeding, is convenient for both women and their health care providers, is associated with less discomfort and fewer side effects than interval insertions and allows women to obtain safe, long-acting, highly effective contraception while already within the medical system. Postpartum IUD insertion, however, may increase the risk of adverse events affecting safety (e.g., perforation, pain, bleeding) as well as effectiveness (i.e., expulsion). Whether postpartum IUD insertion increases the risk of expulsion or perforation has been of particular concern to researchers and clinicians⁷.

In the case of caesarean section, immediate post placental IUD insertion (within 10 min) through the hysterotomy provides a good opportunity to achieve long-term contraception with minimal discomfort to the patient. No studies have shown any increase in the risk of infection or other complications related to this method of IUD insertion. Moreover, some reports indicate that women who deliver by caesarean section may have lower expulsion rates than those who deliver vaginally, with immediate IUD insertion. In studies comparing women who were inserted with an IUD during caesarean section and women who refused IUD insertion during caesarean section, no differences were found in the rates of infection, postoperative pain, hospital stay and volume or duration of bleeding⁸.

CONCLUSION

Since the labour incidence is more during 38+ to 40 weeks, the incidence of acceptance in that group was high i.e. 72%. The rate of acceptance beyond 40 weeks was 15% since there is a higher incidence of meconium stained amniotic fluid in postdated pregnancies.

REFERENCES

1. Katheit G, Agarwal J. Evaluation of post-placental intrauterine device (PPIUCD) in terms of awareness, acceptance, and expulsion in a tertiary care centre. International journal of Reproduction, Contraception, Obstetrics and Gynecology Katheit G *et al.* Int. J Reprod Contracept Obstet Gynecol. 2013 Dec;2(4):539-543
2. Sharma A, Gupta V. A study of awareness and factors affecting acceptance of PPIUCD in South-East Rajasthan. International Journal of Community Medicine and Public Health Sharma A *et al.* Int J Community Med Public Health. 2017 Aug;4(8):2706-2710
3. Ministry of health and family welfare. National Family Health Survey (NFHS-5) India Report 2019-21;158
4. Grimes DA, Lopez LM, Schulz KF, Van Vliet HA, Stanwood NL. Immediate post-partum insertion of intrauterine devices. Cochrane Database Syst. Rev 2010;(5):CD003036. Doi:10.1002/14651858.CD003036.
5. Diaz S, Croxatto HB. Contraception in lactating women. Current Opinion in Obstetrics & Gynecology 1993;5(6):815-22.
6. Diaz S, Zepeda A, Maturana X, Reyes MV, Miranda P, Casado ME, *et al.* Fertility regulation in nursing women. IX. Contraceptive performance, duration of lactation, infant growth, and bleeding patterns during use of progesterone vaginal rings, progestin-only pills, Norplant implants, and Copper T 380-A intrauterine devices. Contraception 1997;56(4):223-32.
7. Zacharias S, Aguilera E, Assenzo JR, Zanartu J. Effects of hormonal and non-hormonal contraceptives on lactation and incidence of pregnancy. Contraception 1986;33(3):203-13.
8. Grimes D, Schulz K, van Vliet H, Stanwood N. Immediate post-partum insertion of intrauterine devices. Cochrane Database Syst. Rev 2001;(2):CD003036