

Observational Study

Postpartum insertion of intrauterine contraceptive device in a teaching hospital in Kalyani, West Bengal : one year review

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Postpartum period is a crucial time when both mother and newborn need a special integrated package of health services as morbidity and mortality rates are quite high in this period. The women are also vulnerable to unintended pregnancy. WHO medical eligibility criteria state that PPIUCD is safe in postpartum lactating women. This prospective longitudinal study was conducted in the Department of Obstetrics and Gynaecology of College of Medicine & JNM Hospital, Kalyani (West Bengal) in the calendar year of 2016. All women coming to antenatal clinic or labour room in early labour were counselled for postpartum insertion of Cu T either at vaginal delivery or lower caesarean section. Cu T 380 A was inserted within 10 minutes of placental expulsion in vaginal deliveries and during caesarean section. Women were followed up at 6 weeks after insertion. 7410 patients delivered from 1st January 2016 to 31st December 2016. Acceptance rate of PPIUCD insertion was 52.5%. Majority of the insertions were post placental insertions (63.7%). Majority of cases who had PPIUCD insertion were between the age group of 18-25 years (40.52%). Most of the clients were para-2 (34.89%). Majority of the patients (38.64%) were primary school educated. Around 56% belonged to Hindu community. 61.86% cases came for follow up and out of these cases 90.77% cases showed willingness to continue PPIUCD. Immediate postpartum IUCD insertion is safe, low cost, long acting and reversible spacing method. The feasibility of accepting PPIUCD insertion can increase with proper antenatal counselling and awareness programs in community.

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Key words : Postpartum, IUCD, Acceptance.

Morbidity and mortality rates are quite high amongst new mothers and newborns in immediate postpartum period. If no contraceptive is used women are vulnerable to unintended pregnancy postlactational amenorrhoea. In developing countries delivery is probably the only time when a healthy woman comes in contact with health care provider and the chances of the returning for contraceptive advice are uncertain¹. Despite availability of wide range of contraceptives, the unmet need for family planning is estimated to be 12.8% in our country². The common reasons for unmet need are unsatisfactory services, lack of information, and fear about side effects of contraceptive method.

WHO medical eligibility criteria state that postpartum insertion of intrauterine contraceptive devices (PPIUCD) is safe in postpartum lactating women with advantage outweighing the disadvantage³. Advantages of immediate postpartum insertion of the IUD include safety, client

motivation, convenience, facilitates adequate birth spacing, does not interfere with lactation, immediately reversible and does not require repeated health care visits for contraceptive refills. PPIUCD insertion gives the women an additional advantage of leaving the hospital with appropriate long term contraception

after institutional delivery and decreases the costs incurred by patients who may otherwise have to return to facilities to access contraceptive services.

Editorial Comments :

- Immediate postpartum IUCD insertion is low cost, long acting safe, reversible spacing method of contraception.
- Proper antenatal counseling awareness increases acceptability.

MATERIALS AND METHODS

This prospective longitudinal study was conducted in the Department of Obstetrics and Gynaecology, College of Medicine & JNM Hospital, Kalyani (West Bengal) from 1st January 2016 to 31st December 2016. The study was approved by the ethics committee of the institution. All women attending antenatal clinic or labour room in early labour were counselled for postpartum insertion of Cu T either at vaginal delivery or at lower caesarean section.

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Women with chorioamnionitis, puerperal sepsis, PROM > 18 hours, known distorted uterine cavity, acute purulent discharge and unresolved PPH were ineligible for IUCD insertion and thus not included in the analysis.

All antenatal patients irrespective of maternal age, risk factor and proposed mode of delivery at antenatal clinic of the institution were counselled about contraceptive option. Women were sensitised about advantages and importance of family planning methods during ANC visits and also at the time of admission (before delivery but not when in active labour). Advantages of PPIUCD and complications were explained. Cu T 380 A was inserted within 10 minutes of placental expulsion in vaginal deliveries and during caesarean section to all the eligible women who gave consent for insertion. Follow up schedule was at 6 weeks after insertion.

RESULTS

7410 patients delivered from 1st January 2016 to 31st December 2016. Overall 3889 patients had PPIUCD insertion in the study period. Acceptance rate thus was 52.5%. Around 36.3% of PPIUCDs were inserted during caesarean section. Majority of the insertions were post placental insertions (63.7%) as seen in Table 1.

Table 2 shows that majority of cases who had PPIUCD insertion were between the age group of 18-25 years (40.52%). Most of the clients were para-2 (34.89%).

Majority of the patients (38.64%) were primary school educated while 35.84% patients were illiterate. Hindu community contributed around 56% whereas Muslim community contributed around 44% (Table 3).

Reason behind acceptance of PPIUCD was mainly PPIUCD counselling whether antenatal, during early labour or prior to caesarean section. 61.86% cases came for follow up and out of these cases 90.77% cases showed willingness to continue PPIUCD (Table 4).

DISCUSSION

The postpartum period is an ideal time to begin con-

Month (2016)	Total Deliveries (TD)	Total Insertions (TI)	Intra Caesarean	Vaginal (Post-placental)	Acceptance TI/TD* 100 (%)
January	607	58	50	8	9.5%
February	546	180	133	47	33%
March	573	213	138	75	38.65%
April	551	257	104	153	46.64%
May	638	209	83	126	32.75%
June	482	325	120	208	67.42%
July	581	367	123	244	63.16%
August	651	391	123	268	60%
September	623	415	139	276	66.6%
October	731	478	132	346	65.4%
November	683	508	131	377	73.37%
December	744	488	139	349	65.5%
Total	7410	3889	1415	2477	52.5%

traception as women are more strongly motivated to do so at this time and is convenient for both patients and healthcare providers. The PPIUCD is highly effective, long acting, reversible cost effective and easily accessible family planning method. It is safe for use by most post partum women and has no adverse impact on breast feeding⁴.

In our analysis, the acceptance rate of PPIUCD was 52.5% which is quite high. This was possible because of extensive counselling by counsellors, sisters and doctors in antenatal clinic and in wards. Videos on family planning and

PPIUCD were played in the television installed in the antenatal clinic and ward. Kharkwal S *et al* also found acceptance rate of PPIUCD to be 60%⁵, whereas Kanhere AV *et al* found acceptance rate of PPIUCD insertion to be 36% which was significantly low as compared to preference to use of other methods of contraception at a later date (64%)⁶.

In our centre majority of the PPIUCD insertions were post placental insertions (vaginal delivery). Whereas some studies found maximum insertions to be Intra Caesarean^{5,7}.

Majority of the patients who accepted PPIUCD were of age group 18-25 years (40.25%). Katheit G *et al* also found acceptance rate higher in age group 21-25 years (50.88%)². But in a study by Borthakur S *et al* acceptance was maximum in the age group 26-30 years⁷.

In our analysis, we found that para 2 women accepted PPIUCD more than the primipara. This was in accordance with the study by Katheit *et al* where they found higher acceptance in para 2 clients (35.76%). Some other studies found higher acceptance in multiparous^{7,8} whereas in another study majority (44%) of the insertions were in para 1 patients^{6,9}.

In 38.64% of the PPIUCD acceptors were primary pass

Table 2 — Distribution of PPIUCD acceptors according to age and parity

Age (in years)	Accepted (Number)	Acceptance (%)
18 -25 years	1576	40.52
26-30 years	1383	35.56
31 - 35 years	916	23.55
<35 years	14	0.35
Parity		
Primipara	1286	33.06
Para 2	1357	34.89
Multipara	1246	32.03

Table 3 — Distribution of PPIUCD acceptors according to education and religion

Education	Accepted (Number)	Acceptance (%)
Illiterate	1394	35.84
Primary	1503	38.64
Secondary	958	24.63
Higher Secondary and above	34	0.87
Religion		
Hindu	2174	56
Muslim	1715	44

Table 4 — Follow up of PPIUCD acceptors

Follow up	Number	Percentage (%)
Presented at 6 weeks	2406	61.86
Willingness to continue	2184	90.77
Expulsion	14	0.6
IUCD removed	8	0.33
Missing thread	139	5.77

which is similar to the findings of other studies where majority of the insertions were in patients who had primary level of education^{5,9}. Jairaj S *et al* found acceptance to be more in those patients who had completed their secondary school level education (23.3%)¹⁰. Various other studies concluded that educational status has definitely high influence in acceptancy of PPIUCD^{2,6,10}.

The willingness to continue this method during follow up was 90.7% in our centre which is similar to the study conducted by Shahbaz F⁴. Regular counselling in antenatal clinic and wards sensitised the mothers. Awareness created by our family planning staff in villages and educating the ASHA workers and sisters in the primary care centre also helped to achieve this.

Expulsion rate was low (0.6%) in our study. In our centre we arrange PPIUCD workshops with hands on training at regular intervals to train the doctors and nurses in the PPIUCD insertion techniques. The expulsion rate in a study by Shahbaz F *et al* was 4.5%⁴ whereas Katheit G *et al*² and Jairaj S¹⁰ found the expulsion rate to be 10.5% and 14.28% respectively. Removal of Copper T was done in 0.33% cases in our study period while in study by Gautam R *et al* and Shahbaz F *et al* removal was done in 4% and 5% cases respectively^{11,4}. In this study, 5.77% cases presented with missing threads which is similar to the findings of Kanhere AV *et al* where 3% cases had missing thread.

CONCLUSION

Immediate postpartum IUCD insertion is safe, low cost, long acting and reversible spacing method of contraception. PPIUCD insertion gives the women an additional advantage of leaving the hospital with appropriate long term contraception after institutional delivery. The feasibility of accepting PPIUCD insertion can increase with proper antenatal counselling and awareness programs in rural and urban areas. With proper insertion techniques expulsion rate can be kept low.

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