

Study on outcomes of immediate post-partum intrauterine contraceptive device at a tertiary hospital

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Abstract

Background: Immediate postpartum intrauterine contraceptive device (IPPIUCD) is an effective postpartum family planning method. It provides reversible contraception and also helps in adequate birth spacing. This study examines the outcomes of IPPIUCD and evaluates the reasons for removal of IUCD in the study population.

Methods: This study was done at District Hospital, Koppal from October 2020 to march 2021. Women who underwent IPPIUCD insertion were included in the study. They were followed up for a period of 8months and outcomes in terms of continuation or removal or expulsion of the IUCD were studied.

Results: A total of 548 women underwent IPPIUCD insertion out of which 332 (60.6%) had post placental IUCD insertion and 216 (39.4%) had intra caesarean IUCD insertion. 54 cases (9.8%) had IPPIUCD removed and 30 cases (5.5%) had IPPIUCD expulsion. Reasons for IPPIUCD removal included pain abdomen (7.4%), menorrhagia (29.6%), fear of complications (35.2%), husband refusal (22.2%) and post sterilisation (5.6%).

Conclusions: IPPIUCD is an effective method of contraception for spacing and limiting births. Proper education and counselling regarding this method of contraception and regular follow up and motivation can help reduce the rates of removal and improve acceptance rates.

Keywords: Post-Partum, Intrauterine Contraceptive Device, IUCD

Introduction

Most women are uncertain about contraceptive usage during the post-partum period which results in adverse maternal outcomes such as induced abortions, miscarriages, and other associated maternal morbidity and mortality and also adverse perinatal outcomes. In developing countries like India, women who once go back home after delivery do not return for follow-up resulting in lack of proper post-partum care and more importantly lack of contraception. This is may be due to various reasons like lack of education and awareness, social pressure, and non-access to facilities ^[1]. In India, 65% of women in the first year postpartum have an unmet need for family planning, but only 26% of women are using any method of family planning during the first year postpartum^[2]. With this continuous raise in the population, it becomes important to practice an immediate and effective method of contraception for spacing and limiting births. IPPIUCD is one such favourable method of long acting reversible contraception by taking advantage of the immediate postpartum period for counselling on family planning. The increase in institutional deliveries acts as an opportunity to provide women easy access to IPPIUCD services. However despite the benefits of IPPIUCD, the acceptance and utilization of IPPIUCD services are still very low at present in developing countries. And among those who incorporate this method of contraception fail to comply with its long term use due to varied reasons.

This study examines the outcomes of IPPIUCD and evaluates the reasons for removal of IUCD in the study population.

Aims and Objectives

To study the outcomes of IPPIUCD among the study population.

Materials and Methods

This is a prospective clinical study conducted at District Hospital, Koppal from October 2020 to March 2021. An ethical clearance was obtained from the Institutional ethics committee.

Inclusion criteria: All women willing for IPPIUCD insertion done either post-placental or intra-caesarean.

Exclusion criteria: Women not willing for IPPIUCD insertion, women with moderate to severe anemia (haemoglobin < 8g%), women with post-partum hemorrhage (PPH), women with uterine anomalies and in those with evidence of any pelvic infection.

Women who underwent IPPIUCD insertion were followed up for 8 months and outcomes in terms of continuation or removal or expulsion of the IUCD were evaluated.

Statistical analysis was done with frequency distribution tables and graphs using Microsoft Word and Microsoft Excel software.

Results

A total of 548 women who underwent IPPIUCD insertion during the study period were included in the study. 49.3% of the women belonged to the age group of 18-22 years and 35% belonged to the age group of 23-27 years. 42.7% of the women among the study population were literate and remaining 57.3% were illiterate. 67.9% were unemployed and 32.1% were employed women. Majority of the women belonged to the lower socio-economic strata (76.6%). 60.4% of women had parity of 1 and 28.1% had parity of 2 (table 1).

Based on the types of IPPIUCD, 332 (60.6%) had post-placental IUCD insertion and 216 (39.4%) had intra-caesarean IUCD insertion (figure 1).

On follow-up up to 1 year, out of the 548 women who underwent IPPIUCD insertion, majority of the women (84.7%) continued to use IPPIUCD method of contraception. 54 cases (9.8%) had IPPIUCD removed and 30 cases (5.5%) had IPPIUCD expulsion (figure 2).

Among those who got the IPPIUCD removed, 74.1% of women belonged to the post-placental group and the remaining 25.9% were of intra-caesarean group. Similarly among the expelled IPPIUCD cases, 73.3% of the women belonged to post-placental group and 26.7% were of intra-caesarean group (table 2).

48.1% of the women got the IPPIUCD removed within the time period of 1-6 months, 37% got it removed within a span of 7 months-1 year following IPPIUCD insertion and 14.85% got it removed within a month following insertion (table 3).

Reasons for IPPIUCD removal were analysed and included pain abdomen (7.4%), menorrhagia (29.6%), fear of complications (35.2%), husband refusal (22.2%) and post-sterilisation (5.6%) (Table 4).

Table 1: Demographic and clinical variables of the study population

Variables	Number of cases (n=548)	%
Age		
18-22 years	270	49.3%
23-27 years	192	35%
28-32 years	69	12.6%
>32 years	17	3.1%
Education		
Literate	234	42.7%
Illiterate	314	57.3%
Occupation		
Employed	176	32.1%

Unemployed	372	67.9%
Socio economic status		
Lower	420	76.6%
Middle	100	18.3%
Upper	28	5.1%
Parity		
1	331	60.4%
2	154	28.1%
>/=3	63	11.5%

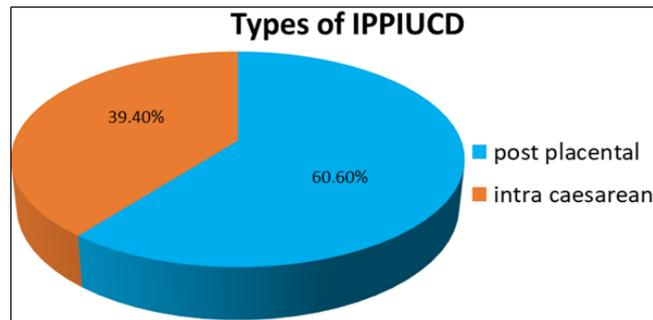


Fig 1: Types of IPPIUCD

Table 2: Outcomes of the IPPIUCD

	Post placental IUCD (n[%])	Intra caesarean IUCD (n[%])
Expulsed	22 (73.3)	8 (26.7)
Removed	40 (74.1)	14 (25.9)

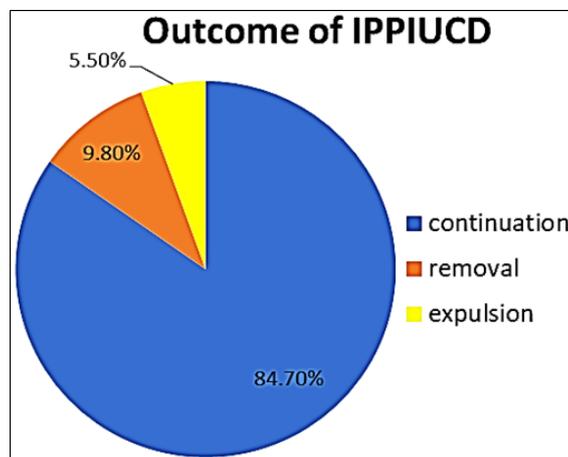


Fig 2: Outcomes of IPPIUCD

Table 3: Timing of IPPIUCD removal

	Number of cases (n=54)	%
< 1 month	8	14.8%
1 month-6 months	26	48.2%
7 months-1 year	20	37%

Table 4: Reasons for IPPIUCD removal

Reason	Number of cases (n=54)	%
a. Pain abdomen	4	7.4%
b. Menorrhagia	16	29.6%

c. Husband refusal	12	22.2%
d. Fear of complications	19	35.2%
e. Underwent sterilization	3	5.6%

Discussion

PPIUCD is a highly effective, rapidly, reversible, safe, long acting, coitus independent contraceptive method that can be initiated during immediate postpartum period in lactating women. WHO medical eligibility criteria states that it is generally safe for postpartum lactating women to use PPIUCD with advantages over weighing disadvantages. PPIUCD is more convenient for health care providers and for acceptors using opportunity of child birth when both the mother and provider are at hospital. It is advantageous for low socio-economic status people who depend on government hospitals for health care, as another visit for contraception not needed, hospitalisation not needed. Fewer instruments needed & no additional staff required.

In our study total 548 women underwent PPIUCD incision, around 49.3% belong to age group of 18-22 years, 57.3% of women were illiterate, 67.9% were unemployed, 76.6% of women belong to low socio-economic status, 60.4% of women acceptors were primigravida. 39.4% had Intra caesarean IUCD, 60.6% had post placental IUCD incision. On follow up for 8 months 54 cases (9.8%) had PPIUCD removed and 30 cases (5.5%) had PPIUCD expulsion.

About 73.3% of expulsion belong to post placental group, 26.7% were of intercaesarean group, about 48.1% of the women got PPIUCD removed within time period of 6 month.

Reasons for removal- Fear of complications (35.2%), Husband Refusal (22.2%), Menorrhagia (29.6%) and for want of Tubectomy (5.6%).

So in my study majority of the women are of younger age group and primigravida, belong to low socio-economic group, illiteracy rate is high. Proper education of women, delay in age of marriage, improving socio-economic status will improve the acceptance rate and continuation of PPIUCD and helps in reduction of maternal and neonatal mortality and morbidity.

Conclusion

IPPIUCD is an effective method of contraception for spacing and limiting births. It can be offered conveniently to all women having institutional delivery without contraindications for IUCD insertion thereby preventing further maternal and fetal complications. Proper education and counselling regarding this method of contraception and regular follow up and motivation can help reduce the rates of removal and improve acceptance rates.

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