



ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

'A COMPARATIVE PROSPECTIVE STUDY OF POST PARTUM INTRAUTERINE CONTRACEPTIVE DEVICE VERSUS INTERVAL IUCD'

KEY WORDS: Interval IUCD, PPIUCD.

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ABSTRACT

Background: Contraception is important for population stabilization. According to Family Welfare Statistics 2011, among different temporary spacing methods; 5.7% couples are using IUCD as a contraceptive measure.

Aim: To compare interval and post partum intrauterine contraceptive device (IUCD) in terms of effectiveness and safety.

Material and methods: A prospective observational study done in the department of Obstetrics and Gynecology, GMERS Medical College, Sola, Ahmedabad, from April 2019 to April 2020 was taken for evaluation. 100 women in each group were selected by convenient sampling method. Outcome was compared between two groups like expulsion rate, continuation rate and complications like dysmenorrhea, menorrhagia, Pelvic inflammatory disease (PID), failure rate and perforation of uterus.

Results: Expulsion rate in PPIUCD group was 8% while in interval IUCD group it was 3%. Continuation rate following Postpartum intrauterine contraceptive device (PPIUCD) and interval IUCD insertion was 85% and 92% respectively. Incidence of menorrhagia was 4% in PPIUCD group while 5% in interval IUCD group. There was one case 1% of PID in both groups. Failure rate was nil in both the group. In our study result shows that no statistical significance was found in observed variables, hence both PPIUCD and interval IUCD are effective and safe spacing methods of contraception.

INTRODUCTION:

According to Family welfare Statistics 2011, current Population of India is 1.21 billion, among which 5.7% couples are using IUCD as a contraceptive measure. Number of Intrauterine Device (IUD) insertions during 2018-19 were 5.65 million.¹ Post partum family planning includes Lactational amenorrhea, IUCD (PPIUCD), Barrier method, progesterone only pills and injectable progesterone. IUCD is free of systemic side effect, not affect breast feeding, not coital dependant and no pain on Insertion.² PPIUCD is CuT inserted within 48 hours of delivery, Interval IUCD is CuT inserted during menstrual cycle, after 6 weeks of delivery or anytime after ruling out pregnancy.³ Aim of this study is for better understanding of sustainability, effectiveness and safety of PPIUCD as compared to interval IUCD.

MATERIALS AND METHODS:

A Prospective observational study of 200 women (100 in each group) attending the department of Obstetrics and Gynecology, GMERS Medical college, sola civil hospital, Ahmedabad during the period of April 2019 to april 2020 who were willing for PPIUCD or Interval IUCD insertion were included according to selection criteria (National Guidelines for IUCD insertion).³ Clients of both groups were followed at 1 week, 6 week and at 1 year period for observation of complications.

Sample Size:

Patient were selected by convenient sampling method as per selection criteria. Total 200 patients were chosen alternatively in each group as follows :

- Group 1 :PPIUCD group
- Group 2 :Interval IUCD group

Selection Criteria :

For PPIUCD (NRHM Guidelines)³

Inclusion Criteria

Post placental, Post partum <48 hours, During caesarean section

Exclusion Criteria

Chorioamnionitis, Premature rupture of membranes (PROM) >18 hours, Puerperal sepsis, Unresolved postpartum hemorrhage, Uterine anomaly

For Interval IUCD

Inclusion Criteria

Anytime after 6 weeks following delivery -Eligible as per WHO medical eligibility Criteria.³

Exclusion Criteria

Women were excluded as per WHO medical eligibility criteria.³

Statistical Analysis:

Chi-square test was applied for statistical analysis of qualitative data. In some tables, when cell value was <5, YATES corrections was applied. P value <0.05 – statically significant. Statistical analysis was performed by using Analytical tool pack of Microsoft excel – 2007 and online on www.quantpsy.org

RESULTS :

In our study, Mean age of PPIUCD and Interval IUCD were 24.69 +/- 4.53 years & 24.12 +/- 4.197 years respectively. In this study, 20% were Primipara and 80% were multipara in PPIUCD Group, while 25% patients were Primipara and 75% patients were multipara in interval IUCD group, with p value of 0.3971 shown that Parity was not statistically significant.

(TABLE 1)

Table 1 : Expulsion Rate And Continuation Rate In Both Groups

Type of insertion	PPIUCD	Interval PPIUCD
Expulsion Rate at 1 week	6 (6%)	1 (1%)
Expulsion rate 6 week in PPIUCD & 1 month in Interval IUCD	2 (2%)	2 (2%)
Expulsion rate at 1 year	0	0
Continuation rate	85 (85%)	92(92%)

Chi square value - 2.405 .P value – 0.1209 df – 1

Expulsion occurs in 8 cases (8%) after PPIUCD Insertion. Expulsion occurred in 3 cases (3%) after interval IUCD insertion. Thus it suggests expulsion rate is more in PPIUCD insertion than interval IUCD, but p value is 0.1209 which statistically not significant. Continuation rate in PPIUCD and Interval IUCD were 85% and 92% in both groups respectively.

(TABLE 2)
Table 2: Comparison Of Complications In Two Groups

Complaints	PPIUCD GROUP	INTERVAL IUCD GROUP	P value
Menorrhagia	4 (4%)	5(5%)	0.7334
Dysmenorrhea	3 (3%)	5 (5%)	0.4704
PID	1 (1%)	1 (1%)	1.0
Expulsion rate	8(8%)	3(3%)	0.1209
Failure rate	0	0	-
Perforation	0	0	-

In PPIUCD group complications like menorrhagia, dysmenorrhea, PID and expulsion rate were 4%,3%, 1% and 8% respectively. In interval IUCD group complications like menorrhagia, dysmenorrhea, PID and expulsion rate were 5%,5%, 1% and 3% respectively. No cases of Failure (Pregnancy) ,perforation found in both groups.

DISCUSSION :

Demographic variables such as age and parity were comparable to various studies.

In Gupta et al⁴, Singh U et al⁵, Shrivastava et al⁶ and Lucksom et al⁷ expulsion rate of PPIUCD were 4.33%, 6.96%, 5.5% and 0.0% respectively compared to this study where expulsion rate is 8%. In Gupta A et al⁴, Singh U et al⁵, Shrivastava et al⁶, Lucksom et al⁷ and & present study expulsion rate of Interval IUCD were 2.0%, 2.2%, 2.9%, 5.95% & 3% respectively.

Various study^{4,5,6,7} shows Continuation rate of PPIUCD Varies from 88% to 94.20% compared to this study where it was 85%. Various study shows Continuation rate of Interval IUCD varies from 81.81% to 92% compared to this study where it was 92%.

(TABLE 3)
Table 3 : comparison of complications with other studies

COMPLICATIONS	Gupta A et al ⁴		Srivastava et al ⁶		Singh U et al ⁵		Present study	
	PPIUCD	Interval PPIUCD	PPIUCD	Interval PPIUCD	PPIUCD	Interval PPIUCD	PPIUCD	Interval PPIUCD
Menorrhagia	4.33%	5.3%	7.2%	21.9%	2.66%	7.9%	4%	5%
Expulsion rate	4.33%	2.0%	2.3%	2.9%	6.96%	2.2%	8%	3%
PID	0	1.2%	1.2%	5.3%	0	0	1%	1%
Dysmenorrhea	2.33%	2.0%	2.9%	12.2%	1.3%	2.9%	3%	5%

CONCLUSION :

PPIUCD and Interval IUCD is an effective spacing method of contraception. There was no statistical significance found in menorrhagia, dysmenorrhea, PID, Expulsion rate, failure rate and perforation between two groups.

Complications like menorrhagia, dysmenorrhea, PID , Expulsion rate were observed by different study shown in TABLE 3 were comparable to our study. In different studies no significant p value were found while comparing both groups same as our study.^{4,5,6,7}

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