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ORIGINAL RESEARCH

Compared the efficacy of post placental and intra-cesarean insertion of intrauterine contraceptive devices

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ABSTRACT:

Background: Intra uterine contraceptive device (IUCD) to prevent pregnancy is among the oldest methods of contraception. Many women also find the IUCD to be very convenient; because it requires little attention once it is inserted. The purpose of this study was to assess and compare the efficacy of post placental and intra-cesarean insertion of intrauterine contraceptive devices. **Material and methods:** A total of 400 women were enrolled as subjects for this study. Any complication that arose was aptly managed and kept a record of. Frequent follow ups and recall appointments were scheduled for every patient to collect and analyse the necessary data. All the collected data was stored in Microsoft excel sheets. SPSS software was used for statistical analysis of the records. **Results:** The desire for future pregnancy was mostly desired after or equal to 3 years period (76%). The most common reason for acceptance was "No remembrance once inserted" with 32.5% of subjects of this opinion. 25.25% of patients accepted because of the reversible nature of the procedure. The major complication was bleeding which accounted for 12.75% of all cases. Expulsion and lack of visibility of strings was encountered in 8.25% and 5.25% cases respectively. **Conclusion:** The PPIUCD was demonstrably safe and the occasional problems of device expulsion, missing threads at follow-up, and the tendency of increased puerperal bleeding need to be solved.

Key words: Intrauterine Device, Postpartum Contraception

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INTRODUCTION

Insertion of an intrauterine contraceptive device (IUD) immediately after delivery has been recommended by the WHO, as one of the safe and effective methods of temporary contraception. In the immediate post delivery period the women are highly motivated and need an effective method for contraception so that the child can be brought up with a relaxed mind without the worry of unintended pregnancy.¹ Increasing population is putting huge pressure on the constrained resources which are not growing in pace with this growing population. . In India, the 2005-2006 National Family Health Survey (NFHS) reported that 61% of births were spaced less than three years and that 22% of married women had an unmet need for family planning.¹⁻³

Intra uterine contraceptive device (IUCD) to prevent pregnancy is among the oldest methods of contraception. The modern IUCD is a highly effective, safe, private, long-acting, coitus independent, and rapidly reversible method of contraception with fewer side effects.³ The National Family Health Survey (NFHS)-3 clearly delineates that the usage of contraceptive practices has increased considerably but is more inclined toward terminal methods of contraception especially the female sterilization. The fact is also evident from various studies carried out from time to time in different Indian states.⁴

Taking advantage of the immediate post-partum period for counselling on Family planning Post-

Partum Intrauterine Contraceptive Device (PPIUCD) is a good option as a contraceptive method. In developing countries, delivery is the only opportunity when the healthy women come in contact to the health care providers, and they may never return seeking contraception advice, so IUCD insertion during delivery may be the best scope to curtail the fertility rate.⁵ The purpose of this study was to assess and compare the efficacy of post placental and intra-cesarean insertion of intrauterine contraceptive devices.

MATERIAL AND METHODS

This study was conducted in the gynaecology department of the medical institute with the aim to assess and compare the efficacy of post placental and intra-cesarean insertion of intrauterine contraceptive devices. A total of 400 women were enrolled as subjects for this study. All patients were selected randomly from routine OPD and informed about the purpose and the intent of the study and were given apt

counseling regarding PPIUCD. A written consent was taken from each participant. The duration of the study was one 12 months. All the procedural steps were performed by senior medical staff of the gynaecology department. Any complication that arose was aptly managed and kept a record of. Frequent follow ups and recall appointments were scheduled for every patient to collect and analyses the necessary data. All the collected data was stored in Microsoft excel sheets. SPSS software was used for statistical analysis of the records.

RESULTS

From the details of this study it was found that majority of the patients belonged to the age group of 20-28 years (62.75%), followed by 29-29 years (30.25%). Other age groups had less percentage of participants. More than 80% of patients were housewives. Parity of one to two was seen in 86% of the subjects. The desire for future pregnancy was mostly desired after or equal to 3 years period (76%).

Table 1. Details of demographic data

Parameter		Number of patients	Percentage of patients
Age group (years)	Less than 20	18	4.5
	20 to 28	251	62.75
	29 to 39	120	30.25
	More than 40	11	2.75
Occupation	Housewife	324	81
	Employed	76	19
Parity	One to two	344	86
	Three to four	31	7.75
	More than four	25	6.25
Future pregnancy desire	One to two years	31	7.75
	More than equal to three years	304	76
	Not sure	42	10.5
	No more	23	5.75

The most common reason for acceptance was “No remembrance once inserted” with 32.5% of subjects of this opinion. 25.25% of patients accepted because of the reversible nature of the procedure. Other less common reasons are given in table 2.

Table 2: Reasons of acceptance among parturient

Reasons of acceptance	Number of patients	Percentage of patients
Long term	23	5.75
Safety	59	14.75
Non-hormonal	14	3.5
Reversible	101	25.25
No remembrance once inserted	131	32.75
Doctor's advice	64	16
Non-interference with breast-feeding	8	2

The major complication was bleeding which accounted for 12.75% of all cases. Expulsion and lack of visibility of strings was encountered in 8.25% and 5.25% cases respectively. The most frequent timing of expulsion was one week to one month later. Lesser cases of expulsion were seen after one month or within one week.

Table 3: Complications

Complications	Number of patients	Percentage of patients
Bleeding	51	12.75
Expulsion	33	8.25
Strings not visible	21	5.25

Table 4: Timing and rate of expulsion

Timing	Number of patients	Percentage of patients
Within a week	3	0.75
One week to one month	25	6.25
More than one month	5	1.25
Total	33	8.25

DISCUSSION

Various contraceptive methods are available to postpartum women including hormonal and nonhormonal barriers, as well as injectable forms. Unfortunately, as reviewed by Trussell, many of these methods although effective, have a high degree of failure when used imperfectly.⁶ The immediate postpartum intrauterine device (PPIUD) insertion is safe, effective, long acting, reversible method of postpartum contraception and does not interfere with breast feeding⁷. Pregnancy with short interconceptional period after cesarean section carries the increased risk of morbidity. Cesarean delivery gives opportunity to obstetrician to counsel woman for PPIUD usage. Intra-cesarean intrauterine device (IUD) insertion can be done under vision, thus obviating fear of perforation of uterus⁸⁻⁹.

From the details of this study it was found that majority of the patients belonged to the age group of 20-28 years(62.75%), followed by 29-29 years(30.25%). Other age groups had less percentage of participants. More than 80% of patients were housewives. Parity of one to two was seen in 86% of the subjects. The desire for future pregnancy was mostly desired after or equal to 3 years period(76%). Sujnanendra Mishra et al described the factors associated with acceptability of immediate PPIUCD insertion in women according to their socio-demographic and obstetrics characteristics, and future pregnancy desires and to determine the rates of uterine perforation, expulsion, pelvic infection, lost strings and displacement following PPIUCD insertion among the acceptors by 6 to 18 months. The study was conducted at District Head Quarters Hospital. Women admitted and delivered at D.H.H. Bolangir, were counselled. CuT 380A was inserted within 10 minutes of delivery of placenta in acceptors who fulfilled the Medical Eligibility Criteria and had no contraindications for PPIUCD. Total women counseled 3209, Accepted 564, Declined 2645, lost to follow up 130, Followed up 434, COMPLICATIONS: 190.¹⁰

This study found that the most common reason for acceptance was "No remembrance once inserted" with 32.5% of subjects of this opinion. 25.25% of patients accepted because of the reversible nature of

the procedure. Other less common reasons are given in table 2. Şevki Çelen et al determined the efficacy and safety of immediate postplacental IUD insertion during cesarean section. Two hundred forty-five women with term pregnancies delivering by cesarean section between September 2006 and December 2007 were included in the study. A copper IUD (TCu 380A) was inserted using a ring forceps within 10 min of removing the placenta. The participants were examined before hospital discharge and at 6 weeks, 6 months and 12 months postpartum. None of the patients were lost to follow-up. There was one case of an unplanned pregnancy (0.4%). There were no serious complications associated with immediate IUD insertion during cesarean section. The cumulative rates of expulsion, removal for bleeding/pain and other medical reasons were 17.6, 8.2 and 2.4 per 100 women per year, respectively. The continuation rates were 81.6% and 62% at 6 and 12 months, respectively. It was concluded that immediate postplacental IUD insertion during cesarean section provides adequate protection against pregnancy. However, greater than one fourth of the participants discontinued IUD use due to spontaneous expulsion or other medical reasons.¹¹

In the present study, the major complication was bleeding which accounted for 12.75% of all cases. Expulsion and lack of visibility of strings was encountered in 8.25% and 5.25% cases respectively. The most frequent timing of expulsion was one week to one month later. Lesser cases of expulsion were seen after one month or within one week (Table 4). Chi IC et al assessed ost-cesarean section insertion of intrauterine devices. Among 52 women who delivered by cesarean section in a medical center in Beijing, China and had either a Delta Loop or Delta T intrauterine device (IUD) inserted manually through the incision wound, the expulsion rates were significantly lower than among a comparable group of 147 women who both delivered and had the IUD inserted vaginally (4.1 versus 20.5 per 100 women at six months post-insertion). Since the cesarean delivery rate is increasing worldwide, they deemed this preliminary finding important for postpartum contraception programs and urge further studies.¹²

CONCLUSION

This study concluded that although the acceptance of PPIUCD was high but the awareness of the PPIUCD among these women was very poor. The study claimed that The PPIUCD was demonstrably safe and the occasional problems of device expulsion, missing threads at follow-up, and the tendency of increased puerperal bleeding need to be solved. Further studies on the safety of this procedure are recommended.

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