

Original Research

Outcome of immediate post-placental IUD insertion at cesarean delivery

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ABSTRACT:

Background: Insertion of an Intrauterine Device (IUD) is a common method of long-acting reversible contraception (LARC). The present study was conducted to assess outcome of immediate post-placental IUD insertion at cesarean delivery. **Materials & Methods:** 104 women undergoing cesarean delivery at 35 weeks of gestation were included. After delivery of the placenta, a copper T380A IUD was inserted into the endometrial cavity through the incision. The patients were followed up at 6 weeks and 6 months postpartum. **Results:** Age group <20 years had 23, 20-29 years had 56 and 30-39 years had 25 patients. The difference was significant ($P < 0.05$). Parity was nulliparous in 53 and multiparous in 51 cases. Marital status was single in 23, married in 70 and unmarried with partner in 11 cases. Indication was elective repeat in 62, shoulder dystocia in 8, macrosomia in 14, preeclampsia in 13 and malpresentation in 7 cases. 6 weeks follow up showed IUD in place in 99 and lost in 5 cases. 6 month follow up showed IUD in place in 96 and lost in 8 cases. The difference was significant ($P < 0.05$). **Conclusion:** Immediate postplacental Intrauterine Device insertion at the time of cesarean delivery is safe and acceptable.

Keywords: Intrauterine Device, pregnancy, contraception

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INTRODUCTION

Insertion of an Intrauterine Device (IUD) is a common method of long-acting reversible contraception (LARC).¹ As a contraceptive option, the Intrauterine Device (IUD) stands out for its effectiveness, convenience, and longevity. Having utilized the IUD for a significant period, I can confidently assert its merits based on personal experience and research.²

One of the most compelling aspects of the IUD is its high efficacy rate in preventing pregnancy.³ With failure rates comparable to permanent sterilization methods, the IUD provides peace of mind for individuals seeking long-term contraception. This reliability is particularly reassuring for those who desire a low-maintenance contraceptive solution. The convenience of the IUD cannot be overstated.^{4,5} Once inserted, it offers continuous protection against unintended pregnancy, eliminating the need for daily or monthly adherence often associated with other contraceptive methods. This aspect is especially beneficial for individuals with busy lifestyles or

inconsistent schedules, as it ensures consistent protection without requiring regular attention.⁶

Immediate postpartum IUD insertion has been established as a safe alternative to interval insertion.⁷ Specifically, the use of a copper T380A IUD in the immediate postpartum period, including after cesarean delivery, has a category 1 rating in the World Health Organization's medical eligibility for contraceptive use.⁸ There are no restrictions on its use in this time period among breastfeeding and non-breastfeeding women.⁹ The present study was conducted to assess outcome of immediate post-placental IUD insertion at cesarean delivery.

MATERIALS & METHODS

The present study consisted of 104 women undergoing cesarean delivery at 35 weeks of gestation. All gave their written consent to participate in the study.

Data such as name, age, etc. was recorded. After delivery of the placenta, a copper T380A IUD was inserted into the endometrial cavity through the

incision. The patients were followed up at 6 weeks and 6 months postpartum. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Age group (years)	Number	P value
<20	23	
20-29	56	
30-39	25	

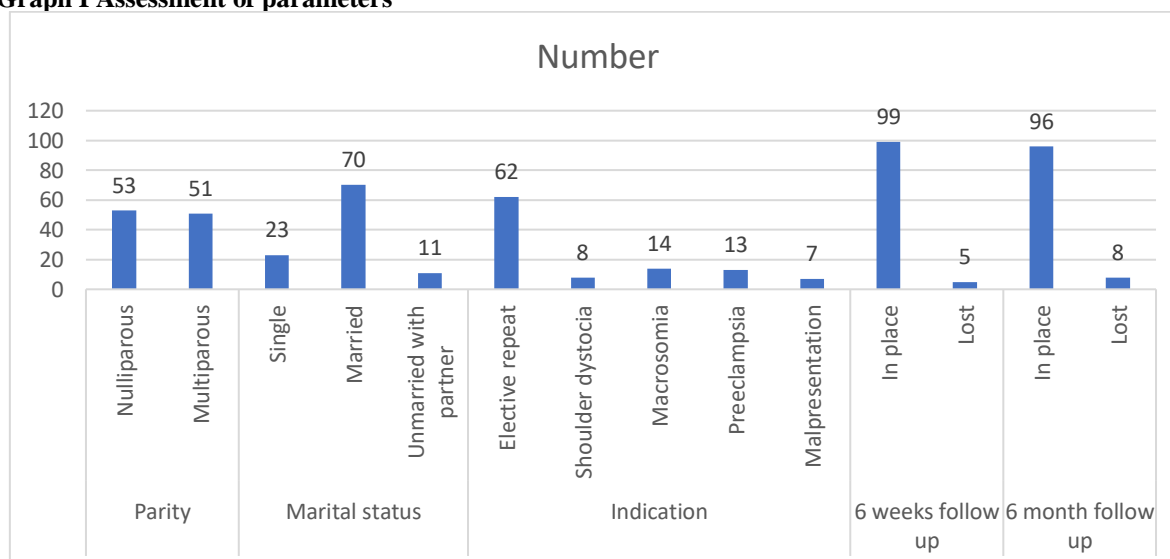
Table I shows that age group <20 years had 23, 20-29 years had 56 and 30-39 years had 25 patients. The difference was significant (P< 0.05).

Table II Assessment of parameters

Parameters	Variables	Number	P value
Parity	Nulliparous	53	0.98
	Multiparous	51	
Marital status	Single	23	0.02
	Married	70	
	Unmarried with partner	11	
Indication	Elective repeat	62	0.05
	Shoulder dystocia	8	
	Macrosomia	14	
	Preeclampsia	13	
	Malpresentation	7	
6 weeks follow up	In place	99	0.01
	Lost	5	
6 month follow up	In place	96	0.01
	Lost	8	

Table II, graph I shows that parity was nulliparous in 53 and multiparous in 51 cases. Marital status was single in 23, married in 70 and unmarried with partner in 11 cases. Indication was elective repeat in 62, shoulder dystocia in 8, macrosomia in 14, preeclampsia in 13 and malpresentation in 7 cases. 6 weeks follow up showed IUD in place in 99 and lost in 5 cases. 6 month follow up showed IUD in place in 96 and lost in 8 cases. The difference was significant (P< 0.05).

Graph I Assessment of parameters



DISCUSSION

In the past, postpartum birth control has not been started until the 6-week postpartum checkup, and women are sent home from the hospital with orders not to have sex for six weeks after giving birth.^{10,11}

Women who delay using a birth control technique until the 6-week postpartum checkup run the risk of becoming pregnant unintentionally during this critical postpartum period. Six weeks after giving birth is when most women start sexual activity, and women

who have cesarean sections may resume earlier than those who had vaginal deliveries.¹² Furthermore, by the time they return for their 6-week postpartum checkup, nonbreastfeeding women run the danger of becoming pregnant unintentionally because they start ovulating by the fourth postpartum week.¹³ The present study was conducted to assess immediate post-placental IUD insertion at cesarean delivery.

We found that age group <20 years had 23, 20-29 years had 56 and 30-39 years had 25 patients. Levi et al¹⁴ included 90 patients undergoing cesarean delivery. After delivery of the placenta, a copper T380A IUD was inserted into the endometrial cavity through the incision. Forty-three (48%) women returned for their 6-week follow-up visits, and among those, no expulsions were recorded. Forty-two (47%) women were reached for phone follow-up at 6 months postpartum, and 80% reported being “happy” or “very happy” with their IUD.

We found that parity was nulliparous in 53 and multiparous in 51 cases. Marital status was single in 23, married in 70 and unmarried with partner in 11 cases. Indication was elective repeat in 62, shoulder dystocia in 8, macrosomia in 14, preeclampsia in 13 and malpresentation in 7 cases. 6 weeks follow up showed IUD in place in 99 and lost in 5 cases. 6 month follow up showed IUD in place in 96 and lost in 8 cases. Letti et al¹⁵ examined the rates of evacuation of intrauterine devices (IUDs) following cesarean section vs vaginal delivery. For the installation of the copper T 380A IUD, 19 patients underwent vaginal delivery and 19 underwent cesarean section. Ultrasound examinations were conducted three to twelve months following delivery, as well as at one month. When the IUDs were discovered outside the uterus (in the vagina) or outside the endometrial cavity (e.g., in the cervical canal), they were deemed fully ejected. There was a statistical difference in the expulsion rates between the two groups: 0% ($p < .001$; OR 5.75, 95% CI 2.36-14.01) after a cesarean section and 50% (ultrasound only) + 27.8% (clinical assessment) after a vaginal birth. Given that the intrauterine position of IUDs is linked to their effectiveness as a form of contraception, the high expulsion rates seen when they are inserted immediately after vaginal delivery contraindicate their use in this setting

The limitation of the study is the small sample size.

CONCLUSION

Authors found that immediate postplacental Intrauterine Device insertion at the time of cesarean delivery is safe and acceptable.

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