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Factors Affecting the Expulsion and Continuation Rates of Post Placental Insertion of Cu 375 and Cut380a in Indian Women at a Premier Hospital in New Delhi

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Abstract

This Study evaluates the factors affecting the expulsion, removal and continuation of post placental insertion of Cu 375 and CuT380A in women according to their socioeconomic profile, literacy status parity and the complications viz. uterine perforation, expulsion, pelvic infection, menstrual abnormality, lost strings and displacement following PPIUCD insertion among the acceptors. Study involved 300 women, divided into two groups: Group A and Group B. Mean age was 24.99 years, 63.8% women were literate and Mean parity in group A & B was 1.97 and 2.06 respectively. Mean pain score during intrauterine contraceptive device insertion on visual analogue scale was 2.93 in group A and 3 in group B. 84% women completed 12 month follow up in group A and 83.33% women in group B. Visibility of strings increased in successive follow up visits and was visible in >80% of women at the end of one year in the both groups. Fifty one percent subjects in group A and 54% in group B experienced amenorrhea up to six month. Menorrhagia was reported in 7.33% in group A and women 8.66% in group B at the end of 1 year of follow up. Pain was complained by 26 out of 150 women in group A as compared to 36 out of 150 women in group B after 1 month of insertion. Psychosocial (nonmedical/ personal) was most common cause accounted for 33.3% removals in our study. There was no case of PID in group A whereas there were 3 case of PID in group B. There was no perforation/ trauma and pregnancy in either group.

Keywords: Intrauterine Contraceptive Devices; Post-Placental; Psychosocial; Menorrhagia; Expulsion.

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Introduction

National Family Health Survey-3 reported contraceptive prevalence is low in India (13%) due to unmet need for contraception. The major problems include lack of awareness, non-availability of accessible family planning services, and women's mobility due to mostly cultural or geographical factors.

various programs of Government of India are encouraging Institutional deliveries, hence for women with limited access to medical care, the time of delivery of baby in a hospital setting is an opportunity to address the need of contraception and to provide methods to woman who may not otherwise receive Family Planning services [1]. Immediate postpartum insertion of Intrauterine Contraceptive Device (PPIUCD) is common in number of countries like China, Mexico, and Egypt, where intrauterine contraception is popular [2,3]. Clinical experiences in these diverse settings confirms the practicality of this approach.

PPIUCD insertion has also some limitations. There is slightly higher risk of expulsion (8 to11%) [5]. It also requires special training of providers and follow up of women is must [2]. The benefits of providing highly effective contraception immediately after delivery outweigh its

disadvantages.

The continuation rate is an important indicator for family planning programs that are oriented to IUCD contraception. However as with the various available reversible methods; early discontinuation with in the first year of IUCD use continues to be a major problem. Major reasons are side effects, complications, failure and/or expulsion.

If the clinical outcome of Cu 375 IUDs for Postpartum insertion is known, it will give wider choice of contraception to postpartum women and should be a valuable addition to National family planning program and will enable women to choose the device with characteristics most suitable to user.

Aims and Objective

1. To identify the factors affecting the continuation and expulsion rates of CuT380A and Cu375 intrauterine contraceptive devices

Material and Methods

This Prospective Randomized Comparative study was conducted in the department of Obstetrics & Gynecology, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi from November 2011 to March 2013. This study included 300 women who delivered in this Hospital and divided into two groups A & B:

Group A: Included 150 women who had post placental insertion of Cu 375 IUD.

Group B: Included 150 women who had post placental insertion of CuT380A IUD.

1. The data was analysed by using 'student "t" test/ non parametric 'Wilcoxon Mann Whitney' for quantitative variables to evaluate the safety, efficacy & acceptability.
2. Chi Square/Fisher's exact test was used for testing the statistical significance of qualitative variables.
3. Life table analysis was used to determine expulsion and discontinuation rates for different group of IUD insertion

Methodology

Women attending ANC clinic, admitted in antenatal ward and in early labour (in labour room) were counseled about all postpartum family planning methods available, their advantages, limitations, effectiveness and side effects using suitable IEC (information, education and communication) materials and models. They were given option of PPIUCD or interval IUCD insertion and enrolled for the study only when they agreed to come for follow-up visits post insertion and were followed up at 1 month, 3 months, 6 months and at 1year post IUCD insertion.

Inclusion Criteria

Postpartum women desirous of IUCD insertion and willing to come for follow up.

Exclusion Criteria

Intrapartum & recent antepartum fever (within 7 days), Puerperal sepsis, Postpartum hemorrhage, Rupture of membranes for greater than 18 hours prior to delivery, Prolong labour more than 12 hours, History of sexually transmitted infection during the index pregnancy or in the last 3 months prior to enrollment.

Observation and Results

Age Distribution

Maximum women in both groups were within age group 21-25 years. Mean age of the study population was 24.99±4.2 years (Table 1).

Table 1: Age wise distribution

Type of IUCD		Age Group (yrs)					Mean age± SD (yrs)	P value
		≤20	21-25	26-30	31-35	> 35		
Group A, n=150	Number	14	73	33	23	7	25.80±4.95	0.069
	%	9.3	48.6	22	15.3	4.6		
Group B, n=150	Number	8	90	45	7	0	24.19±3.10	
	%	5.3	60	30	4.6	0		

Table 2: Distribution according to Literacy status.

Literacy	IUCD acceptance	
	n	%
Literate*	194	63.8
Illiterate**	106	36.2
Total	300	100.0

*Literate: who can read and write at least one language.
**Illiterate: who cannot read and write any language

Distribution According to Literacy Status

Acceptance of IUCD insertion was significantly more in literate women (63.8%) as shown in Figure. This difference was statistically significant (P>0.05). (Table 2).

Socioeconomic Status of IUCD Acceptors

According to Modified Kuppuswamy scale based on level of education, occupation, and household income, majority of IUCD acceptors (71.33%) in our study were of low socioeconomic status followed closely by middle class (28.66%). No statistical difference in socioeconomic status was obtained between group A & group B (p=0.903 by Pearson chi-square test) (Table 3).

Table 3: Socioeconomic status of IUCD acceptors

Socioeconomic status	Group A, (n=150)		Group B, (n=150)		Total(n=300)	
	Number	%	Number	%	Number	%
Low	104	69.3	110	73.3	214	71.33
Middle	46	30.6	40	26.6	86	28.66
Upper	Nil	Nil	Nil	Nil	Nil	Nil

Table 4: Provider's Perception of Ease of IUCD Insertion

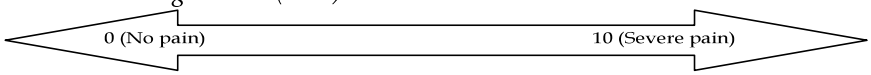
Type of IUCD		Ease of Insertion(1-10)	
		Easy(1-5)	Difficult(6-10)
Group A, n=150	Number	144	6
	%	96	4
Group B, n=150	Number	145	5
	%	96.6	3.3
Total, n=300	Number	289	11
	%	96.3	3.6

Insertion Related Factors

- *Provider's Perception of Ease of IUCD Insertion*

Majority (96.3%) of the insertions were perceived to be easy by provider. Four percent (4%) insertions were found to be difficult in group A as compared to 3.3 % in group B and this difference was not statistically significant (Table 4).

Visual Analogue Scale (0-10)



Perception of Pain during IUCD Insertion by Acceptors

All women were asked to grade their pain perception during IUCD insertion on a Visual Analogue Scale (VAS) of 0 to10, where score of 0 represents no pain and 10 represents severe pain

Table 5: Perception of Pain during IUCD Insertion

Type of IUCD		Perception of pain on insertion*		Mean VAS ±SD
		VAS (0-5)	VAS(6-10)	
Group A, n=120	Number	106	14	2.93±1.76
	%	97.7%	2.3%	
Group B, n=120	Number	104	16	3±1.65
	%	94.2%	5.8%	
Total	Number	210	30	P=0.526
	%	96.0%	4.0%	

*Applicable only on vaginal insertion

experienced ever.

- Mean pain score during IUCD insertion on visual analogue scale was 2.93 ± 1.76 in group A and 3 ± 1.652 in group B (Table- 5).

Observations during Follow-up

- *Duration of Breast Feeding*

All women were breastfeeding their baby at first follow up visit at 1 month. Majority (71.3%) of women continued breast feeding beyond 6 months in group A as compared to 64.6% in group B (Table 6). On comparing the duration of breastfeeding by Fisher's exact test the difference was not found to be statistically significant (p=0.005) in both the groups.

- *Distance of Horizontal Limb of IUCD from Endometrial Lining of Fundus of Uterus*

Distance was measured ultrasonographically after 1month of insertion, which was more than 8mm in 18.6% subjects in group A as compared to 24.6% in group B. (Table 7)

Table 6: Duration of breast feeding

Duration of breast feeding	Group A, n=150		Group B, n=150	
	Number	%	Number	%
>6 months	107	71.3	97	64.6
<6 months	43	28.7	53	35.4

Table 7: Distance of horizontal limb of IUCD from fundus at 1 month of follow up

Distance (mm)	Group A, n=137*		Group B, N=139*		Total, n=300	
	Number	%	Number	%	Number	%
<8mm	115	81.8	104	69.3	219	75.33
>8mm	22	18.6	35	30.6	57	24.66
P value				P=0.013		

*Excluded those women who had expulsion in 1 month of IUCD insertion.

Mean distance of horizontal limb of IUCD from fundus of uterus was 5.2±2.3mm in group A and 6.7±4.3mm in group B. There was statistically significant difference in distance of horizontal limb of IUCD from fundus of uterus between group A and B by Pearson chi-square test (p value= 0.013).

- *Menstrual Patterns*

Fifty one percent (n=77) subjects in group A and 54% (n=81) in group B experienced amenorrhea up to six month. In group A, amenorrhea persisted till 12 month in 2 cases (1.33%); whereas in group B, all women resumed menstruation at 12 month (Table 10).

- In group A, 68.3% (n=103) subjects and in group B, 67.3% (n=101) subjects had normal periods at the end of 12 month.
- In group A 12% (n=18) women and in group B 14% (n=21) subjects complained of post insertion bleeding/spotting per vaginum at 1 month of IUCD insertion
- Menorrhagia was reported by 7.33% (n=11) subjects in group A and 8.66% (n=13) subjects in group B at the end of 1 year of follow up. This difference was not statistically significant (P>0.05). Oligomenorrhea was reported by 6.6% (n=10) subjects in group A and 7.3% (n=11) subjects in group B at 12 month of insertion.

Expulsion of IUCD

Overall expulsion rate was 13%. Eighteen women out of 150 (12%) had expulsion of IUCD over one year

Table 8: Timing of insertion and expulsion of IUCD

Type of IUCD	1 month		3 month		6 month		12 month		Total expulsion
	Number	%	Number	%	Number	%	Number	%	Number (%)
Group A, n=150	13	8.6	3	1.2	1	0.6	1	0.6	18 (12)
Group B, N=150	11	7.3	3	1.2	4	2.6	3	2	21 (14)
Total, n=300	24	8	6	2	5	1.6	4	1.3	39 (13)

period in group A and 21 women (14 %) in group B. (Table 8).

Factors affecting Expulsion of IUCD (Cu 375 and CuT380 A)

Factors taken into consideration were age, socioeconomic status, literacy status, type of IUCD and distance of horizontal limb of IUCD from fundus of uterus (IUD-ED) and Logistic regression analysis was performed. There was no significant correlation found between age and parity on expulsion of IUCD. Distance of horizontal limb of IUCD from fundus of uterus was measured at 1 month after insertion by USG in both groups. Thirteen subjects in group A and 11 subjects in group B had expulsion at 1 month of insertion hence IUD-ED was not measured. IUD-ED in rest of the 5 expulsions in group A was less than 8 mm and in group B, IUD-ED was less than 8 mm in 7 expulsions and more than 8 mm in 3 expulsions. There was no correlation between Type of IUD (Cu 375 and Cu 380A) and expulsions.

Discussion

Post partum period is one of the critical times when both woman and newborn need a special and integrated package of health services as morbidity and mortality rates are quite high during this period, and also the women are vulnerable to unintended pregnancy. Studies show that pregnancies taking place within 24 months of a previous birth have a higher risk of adverse maternal and perinatal outcome [8].

IUD Expulsion

Spontaneous expulsion is commonest event associated with post partum IUCD insertion with reported incidence of 8-14% in various studies [10].

In the present study 18 out of 150 (12 %) women had expulsion of IUCD over one year period in Cu 375 insertions (group A) and 21 women (14 %) in CuT380A insertions (group B). The expulsions were higher in first 1 month of IUD insertion and decreased successively in next follow up visits. There were more expulsions in CuT380A users as compare to Cu 375 users but the difference was not statistically significant.

Table 9: Spontaneous expulsion rates of PPIUCD in various studies

Study	Type of IUD	Expulsions at one year (%)
Beltagy et al[8]	CuT380A	15%
	Cu 375	14.9%
Celen S et al[12]	CuT380A	12.3%
Eroglu et al[32]	CuT380A	14.3%
Present study	CuT380A	14%
	Cu 375	12%

Similar results were seen by Beltagy et al [8], and Eroglu for PPIUCD insertions [32] (Table 9).

Type of IUD Insertion

Studies by Siemens et al and Zhou S et al have reported significantly less expulsion with intracaesarean insertions compare to vaginal deliveries [11]. Whether this relates to assurance of high fundal placement or to less cervical dilatation is not clear. However Celen S (2011) reported higher expulsion rate to be 17.6 per 100 women per year following intra cesarean insertion [12].

Our results are in accordance with studies by Siemens et al and Zhou S et al. There were 97.5% (n=38) and 2.5% (n=1) expulsions in vaginal and intra cesarean insertions respectively.

Timing of Insertion

Timing of insertion also influenced expulsion rates. Grimes et al reported lower expulsion rates with post placental insertions as compared to early post partum insertions in Cochrane review based on multiple randomized controlled trials [1]. Cole et al and Brenner PF et al reported lower expulsion rates after post placental IUCD insertion as compared to early post partum insertion and attributed this to easy & high fundal placement of IUD [19]. However, Dahlke et al reported higher expulsions in post placental insertions [30]which may be due to anatomical considerations. After delivery angle between upper and lower segment of uterus becomes more acute and difficult to negotiate and may hinder proper placement of IUCD. This emphasizes the need to counsel women for post partum family planning methods (PPFP/ PPIUCD) in ANC period as post placental insertion has fewer expulsions and causes less discomfort to women.

In our study all the insertion were post placental with expulsion rate of 12% in Cu 375 and 14% in CuT380A insertions which are comparable to the

expulsion rates reported in other studies on post placental insertion of IUDs [8].

Technique of Insertion

Most studies have not shown significant difference in expulsion rates between insertions done by hand or by instrument [2]. Uniform methodology for insertion using Kelly's forceps was adopted throughout our study. This long curved instrument without locking feature allowed not only fundal placement but also prevented entanglement of IUD string while withdrawing the instrument. Other studies have used either ring forceps whose length is not sufficient to place IUCD at fundus or manual insertion, where again fundal placement might not have been achieved.

Experience of Provider

Insertion immediately after expulsion of placenta requires special training, and expulsion rates are reduced with the insertion experience of the practitioner [20]. A prospective study in Turkey reported an expulsion rate of 70%, whereas Morrison et al noted a trend toward fewer expulsions (5%) over time with post placental IUCD insertion, when the IUDs were placed by experienced clinicians, suggesting that with experience, placement of IUCD post placentally improves [2]. The importance of insertion skills has also been highlighted in studies done by Cheng D and Suzan G et al [16] Study by Aznar R et al in which high fundal insertion was done immediately after delivery of placenta showed decreased expulsion [31].

Breast Feeding

Xu et al noted higher expulsion rates (22.4%) in non-breastfeeding women as compared to breastfeeding women (11.9%) [3], however no such difference has been observed by study done by Kennedy KL [20]. In present study also no correlation was observed between breast feeding and expulsion of IUCD.

IUD-ED and Expulsions

There is much evidence that shows Trans Vaginal Sonography to be highly accurate in monitoring the location of any type of IUCDs [20]. Beltagy et al found the association between the IUD-endometrial distances more than 10 mm and expulsions [7]. However, the maximum IUD-ED to ensure adequate contraception is under debate. In present study also no correlation was found between ED-IUD distance and expulsion.

Measures for Early Detection of IUD Expulsion

Early follow up, combined with self-examination for the presence of the strings, may be important in detecting early spontaneous expulsions. Women should be thoroughly counseled to detect expulsion & to return immediately for reinsertion or another contraceptive method. Women themselves detect 90-95% of expulsions and reinsertion rate of 73-93% have been reported [8,9]. The benefit of providing highly effective contraception immediately after delivery may outweigh the disadvantage of increased risk for expulsion.

In present study complete and partial expulsions were 10 and 29 respectively. Complete expulsions were detected by women thereself while partial expulsions were detected during examination. Reinsertion of IUD was done in 31 women and rest of the women was counseled for other family planning methods.

Bleeding Related Factors

Regardless of type of IUCD, the most common side effects associated with the copper bearing IUCDs are change in the amount and menstrual flow as well as increase in the amount of menstrual related cramping. In the first six weeks post partum, such changes are masked by the usual irregular bleeding and spotting associated with uterine involution during the post partum period. These changes are usually not harmful to the woman and disappear within the first few months after IUCD insertion.

In present study post insertions bleeding/spotting was reported by 12% in group A and 14% in group B at 1 month of IUCD insertion. All the women responded to medical management except in 5 subjects where IUD removal was done.

Roberto-Flores and others found, in their 3-year study in a multicenter clinical trial by UK Family Planning and Reproductive Health Research Network, that bleeding following early postpartum IUD insertion is more intense with the Cu T380 IUD than with the Multiload 375 IUD [24]. However no such difference was found between two IUCD users in present study.

The rate of post insertion bleeding after immediate post placental insertion was reported to be only 0.2% by Xu et al, an incidence that is not necessarily higher than among general obstetric women [13]. In study done by Pedron N studying the effect of post partum

IUD insertion on post partum bleeding, incidence of bleeding was not found to be higher in women receiving post placental insertion than not receiving IUCD [23]. In study done by Eroglu K et al excessive bleeding occurred in 2.4 % of the women in the post placental group, in 4.7% of the women in early post partum group, and in 6.2% of the women in the interval insertion group [32].

Menorrhagia was reported by 11 (7.33%) Cu375 users and 13 (8.66%) CuT380A users at the end of 1 year of follow up. Majority of women (8.6% in group A, 10% in group B) complained of Menorrhagia at 6 month. Menorrhagia responded to haemostatic agents in all except in 2 women in each group, in whom IUCD removal was done. Menorrhagia in Intracesarean group was comparable to vaginal PPIUCD users.

Only one (0.66%) Cu375 users and 4(2.6%) CuT380A users complained of spotting per vaginum at 3 month of IUCD insertion after that none of the women complained of inter-menstrual bleeding or spotting in either of study groups.

Beltagy et al reported that at 6 weeks, more numbers of the CuT380A IUD users were complaining of Menorrhagia and metrorrhagia than the Multiload 375 IUD users. However, at 6 months, the bleeding abnormalities were higher among the Multiload 375 IUD than the CuT380A IUD users. This finding was attributed to the large size and spikes of the Multiload IUD which make it fit well in the large uterine cavity during the early post partum period. However, it may be that, when involution of the uterus occurs by 6 months after delivery, the large surface area of the Multiload IUD causes more Menorrhagia and metrorrhagia [8].

Menorrhagia was the common reason for removal of IUD and was observed after 6 months of insertion. Lactation amenorrhea might have led to a decrease in the incidence of bleeding related to the presence of IUD. Women who accepted PPIUCD were also counseled strongly about advantages of exclusive breast feeding. As a result, 50% of women didn't resume their menstruation by six months post partum.

Vaginal Discharge

Vaginal discharge after IUCD insertion is usually of non specific origin occurring due to foreign body reaction and subsides with passage of time. Cheng et al found low rate of vaginal discharge or PID in both ML 375 and CuT380A [17].

In present study vaginal discharge was reported by 16% women in group A and 19.35% women in group B at 1 month of follow up. Number of women with vaginal discharge decreased with passage of time i.e.4 (2.6%) women in group A and 6 (4%) women in group B. The difference in rate of vaginal discharge was not found to be statistically significant at 1 year of follow up ($p > 0.05$). On wet smear examination infection was non-specific in all except in four women where discharge was due to Trichomonas *vaginalis* in one and Candida *albicans* in other three.

Pelvic Inflammatory Disease (PID)

One of the primary concerns with IUD utilization has been the risk of upper genital tract infection and the concern that an in situ IUD increases the risk of pelvic inflammatory disease. However, large studies performed in a variety of clinical settings and geographic locations have demonstrated that the insertion process rather than the in situ IUD increases the risk of infection. The risk of pelvic inflammatory disease is more than 6 times higher in the first 20 days after insertion and decreases to a rate similar to reproductive aged women who are not using an IUD for contraception in subsequent years [25]. The important characteristic that a potential IUD user should possess is that she is involved in a stable, mutually monogamous relationship. Risk of pelvic infection and subsequent infertility is higher in IUD users with multiple sexual partners than those with only one partner [26].

The use of PPIUCD insertion does not increase the risk of infection [4]. Lean et al evaluated the pelvic infection rate of 0.1% among 3,267 women who received immediate PPIUCD [14]. Other studies also reported low infection rate (0.2% - 0.8%) [15].

Similarly in our study the incidence of pelvic infection (PID) resulting in removal of IUD was low in both groups. In present study three out of three hundred (1%) women presented with abdominal pain & vaginal discharge at 3 month of follow up. Diagnosis of pelvic infection was made and confirmed by examination. There was no case of PID in Cu375 users whereas there were 3 case of PID in CuT380A users. This difference was statistically significant ($P<0.05$). One case of PID in CuT380A users was diagnosed at 1 month of follow up. She had intra cesarean insertion of CuT380A. The history of prolonged rupture of membranes was failed to be elicited. The other two cases of PID were diagnosed at 12 month of insertion.

This highlights the importance of proper client assessment before IUCD insertion. The IUCD should never be inserted when puerperal infection such as chorioamnionitis or endometritis is suspected.

Uterine Perforation

There were no perforations or trauma to cervix occurred in our study. The uterine wall is thick after delivery; thus uterine perforation during post partum insertion is unlikely to occur, but during puerperium the uterus is small and the uterine wall is thin, leading to an increased risk of uterine perforation during insertion.

Other factors associated with an increased risk of perforation include skill of the clinician and anatomic factors, such as a stenotic cervix or an immobile or a retroverted uterus [27]. Perforation of the uterus occurs at the time of interval IUD insertion at a rate of 1–2 per 1,000 insertions [16]. Eroglu K et al found uterine perforation in 2.3% of women in interval group but none in post placental and early post partum group [32].

IUCD Removal

IUCD removal rate in our study was 5%. Removal rate was 4.66% in Cu375 users and 5.33% in CuT380A users. Similar results were observed in other studies also [17]. In contrary Wen J et al reported the removal rate (for bleeding and/or pain) and PID for TCu380A to be higher than those of MLCu375 [6].

Psychosocial causes accounted for 33.3% removals in our study in first 3 months of IUCD insertion in PPIUCD group. There were no removals in women who had intra cesarean IUDs insertions due to this reason. Most of the removals were reported to be due to "personal reasons" rather than to "Medical" reasons. Woman during labour or immediately after delivery accepts IUCD as her motivational levels are high, but later on regrets her decision. Family pressure was also an important reason. Counseling (pre/post insertion) of women can go in long way to reduce removals. Husband and family members may also be included in counseling session if required.

After 6 months commonest reason for removal was medical (pain & bleeding and pelvic infection). Medical cause accounted for 66.6% of total removals in present study. Removal for pelvic pain, infection or Menorrhagia accounted for 3 (1%) removals in Cu375 users and 7(2.3%) in CuT380A users. This was in accordance with study by Lara R et al. in which the removal rates for bleeding and pain were 4.9 and 4.8 and the removal rates for non medical reasons were 3.7 and 4.9 respectively for Cu375 & CuT380A users respectively [7].

In multiple studies bleeding and dysmenorrhea led to CuT380A removal in 4% and 15% women respectively over 1 year of its use [31]. Pain and bleeding were cause for removal in 5% women in a multinational study conducted in Yugoslavia and Panama [18]. Bhatnagar and colleagues, and Grimes et al reported removal rates ranging from 3.1% to 10.6% on account of pelvic pain [1,28].

The ICMR study (1986) reported 9% IUCD removals due to excessive white discharge [22]. The study by Bhatnagar and colleagues reveals this figure to be 5.2% [28].

In our study none of the women required removal because of excessive vaginal discharge in either group.

In present study the safety aspect of post placental insertion was assured. No perforation and low rate of infection occurred in women undergoing post placental insertion of Cu 375 and CuT380A. Although bleeding related problems were reported by 8.6% subjects in Cu 375 and 10% subjects in Cu T380A and pelvic pain was reported by 4% subjects in both the groups at the end of 1 year, this responded to analgesics, haemostatic agents and proper counseling. At the end of 1 year no significant difference was found between Cu 375 and CuT380A insertions in these adverse effects.

Conclusion and Recommendation

Expulsion is an adverse event associated with post placental IUCD insertion of both type of CuT380A and Cu 375 IUDs. Majority of expulsions in CuT380A and Cu 375 can be detected during first three months of insertion. This highlights the important need of follow up visit at one month for early detection of expulsions. Further proper fundal placement is key to success of IUCD. Correct technique of insertion is important in reducing the expulsions.

Nonmedical (psychosocial) reasons are commonest cause for removal in first three month of IUCD insertion. After 6 months post insertion request for IUCD removal are mostly medical (pain, bleeding, infection etc). Counseling for post partum family planning methods is essential not only for initiation of family planning but also for continuation of contraceptive methods.

Further study is necessary to find way to reduce expulsions following post placental Cu375/ CuT380A IUD insertions and Studies should also concern to find out the cause of bleeding related problems associated with copper bearing IUDs as this is the most common complaint encountered after Cu IUDs insertions.

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