

Identification of Factors for Continuation and Cause of Discontinuation of IUCD (Cu-T380A) during Postpartum and Post-Abortion Period: Experience in A Private Hospital

AHMED QN¹, EVA SY², SULTANA R³, YASMIN E⁴, AKTER A⁵, ROUF S⁶, SHOMPAL⁷

Abstract

Introduction: In Bangladesh, family planning remains one of the top priorities to achieve SDGs. The unmet need for contraception among women can be effectively fulfilled by inserting IUCD after end of a pregnancy state. The acceptance and continuation of IUCD is influenced by different factors. The objective was to study demography of IUCD user, side effects or complaints of clients and frequency of discontinuation of use.

Methods: A prospective study was conducted in a private hospital from April'2016 to March'2018. All couples, who attended there for pregnancy termination (delivery or abortion), and wants contraception, but had no contraindication, were counseled to take "Cu-T380A". Those who took Cu-T were monitored and followed up for one year regarding any complaints, continued or discontinued.

Results: Among 218 women, who were counseled to take Cu-T380A, 113 were postpartum and 105 were post-abortion. The factors identified by the couples for continuation were its long acting criteria, no hormonal exposure, convenient, and highly effectiveness. In around three forth women there was no complaint and only one forth has some adverse effects. Most of which were resolved by counseling and/or medication, but in 3.54% and 4.76% cases respectively in postpartum and post-abortion women needed removal. Complaints in postpartum women were Cramp like pain 20.35%, any shorts of menstrual abnormality 17.69%, coital problem from husband 3.53%, displaced CuT 1.76%, signs of PID 0.88%. Post-abortion women complaints of menstrual abnormality 20.95%, cramp like pain 23.80%, coital problem from husband 5.71%. The causes for discontinuation were expulsion, menorrhagia and coital problem in postpartum insertion and wished new pregnancy, menstrual disorder, coital problem and lower abdominal pain with per-vaginal excessive discharge were for removal in post-abortion case.

Conclusion: Cramp like abdominal pain and menstrual problems are the major side effects in both postpartum and post-abortion Cu-T insertion.

Key words: Contraceptive methods, IUCD (Cu-T380A), Post-partum period, Post-abortion period

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1. Dr. Qumrun Nassa Ahmed, Associate Professor, Department of Gynae & Obs, Green Life Medical College
2. Dr. Saima Yeasmin Eva, Registrar, Department of Gynae & Obs, Green Life Medical College
3. Dr. Rifat Sultana, Assistant Professor, Department of Gynae & Obs, Green Life Medical College
4. Dr. Elora Yasmin, Assistant Professor, Department of Gynae & Obs, Green Life Medical College
5. Dr. Asma Akter, Registrar, Department of Gynae & Obs, Green Life Medical College
6. Dr. Salma Rouf, Professor, Department of Gynae & Obs, Green Life Medical College
7. Dr. Lima Shompa, Professor, Department of Gynae & Obs, Green Life Medical College

Address of correspondence: Dr. Qumrun Nassa Ahmed, Associate Professor, Department of Gynae & Obs, Green Life Medical College, Email: qumrunmow@yahoo.com

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Introduction:

Contraceptive use plays an important role in minimizing unintended pregnancies, reduce maternal mortality, and improve child survival, and thus, an important contributor in achieving SDG goals. Desire for smaller family, planned-timed pregnancy and birth spacing has increased dramatically in developing countries now a day. Copper IUDs are the most commonly used type of IUD and the Cu T 380A has been found to be most effective IUD.¹ It is a highly effective, safe, private, long acting, coitus independent and rapidly reversible method of contraception with fewer side effects.² But discontinuation rates are very high for all family planning methods in Bangladesh- according to Bangladesh Demographic and Health Survey (BDHS).³ About half of Bangladeshi couples

discontinue their family planning method within one year, a rate much higher than in other countries in the Asian region.

During antenatal period it is easy to motivate a woman to delay next pregnancy and sometime a chance to counsel about contraception. So, after a pregnancy termination we can have an opportunity to suggest a long acting reversible contraceptive, preventing all the health hazards related to unexpected conception and have no chance of continuing an accidental pregnancy. Half of all unintended pregnancies in developing countries are terminated⁴, most of which are carried out in illegal or unsafe circumstances with consequent morbidities or mortality. Moreover, children born from pregnancies that are reported as “unwanted,” as well as those who are born after short birth intervals, may risk developmental and psychosocial delays as well as growth challenges.^{5,6,7} Addressing this situation a postplacental or a postabortion long acting contraceptive Cu-T380A is a time demanding. We try to find out the cause of pre term removal of CuT and then ensure its continuation and get all the benefits.

The aim of this study was to evaluate demography of users, why they continue IUCD, and what made them to remove CuT380A in both postpartum and post-abortion insertion.

Methods:

A hospital based longitudinal type of descriptive study was conducted in a maternity clinic from April'2016 to March'2018 and 231 women were included in this study. All couple, who attended the maternity for termination of pregnancy (delivery or abortion) and needed contraception, were counseled and motivated to take contraceptive. Those who were motivated to take IUCD, were counseled regarding advantages, limitations, effectiveness and side effects related to Cu-T380A. Then their query were asked and answered. Those couples who chose the method were also informed about Cu-T380A, where to place, how to insert, there mode of action, how long they can work, what are the side effects, if any problem what to do and when to discontinue or remove, and how to follow up. Every woman was screened for clinical situations as per WHO medical eligibility criteria.

Women in immediate post placental period (within 10 minutes of placental expulsion), immediate post-partum period (<48 hours after delivery) or during caesarean section or immediate post-abortion, who were convinced to take participation in the study.

Informed consent was obtained from all clients (both from husband and wife) before insertion. The PPIUD (CuT-380A)

was placed within 48 hours following child birth or abortion.

Records were maintained regarding Cu-T380A insertions and services by the provider. Follow up visit at 1st month, 6th month, and 12th month after insertion was recommended and maintained. A counselor was present to counsel all the clients during antenatal period, just after termination of pregnancy, and during follow up. She also rings the clients in interval and also those who did not came for follow up regularly. During the follow up visit the women were asked if they had any complaints and a speculum examination was performed to assess if the IUD strings have descended into the vagina. In a few women in whom strings were not visible in vagina, ultrasonography was done to confirm the intrauterine position of IUD. Findings of the follow up visits were recorded in all clients including expulsion, menstrual disturbances, pelvic pain, removal, incidence of infection and other side effects.

A questionnaire was developed for interviewing the study group during postpartum and post-abortion period and during follow up. Every client was monitored for one year to find out their adherence, compliance, any side effect that might have developed, and ultimately continuation of their contraception or not. The factors that the women considered for continuation were identified, side effects are asked and recorded and if not want to continue the method then reason behind was also recorded.

Results:

Total 231 women were included for inserting Cu-T380A, but follow up was compliance in 218 clients. Of 218, postpartum cases were 113 and post-abortion was 105 women).

Age distribution of them showed 32% of the cases belonged to 31 to 35 years group and 30% were in 26 to 30 years group.

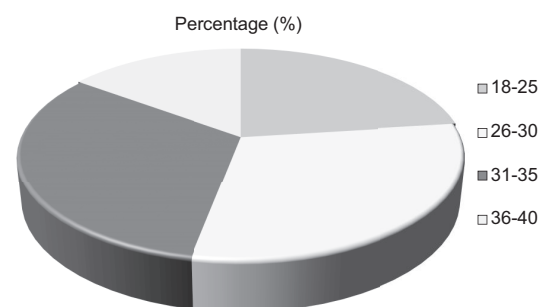


Fig.-1: Pie chart showing age distribution

No nulli-parous women had Cu-T inserted. Cu-T use was highest after 2nd child and declined thereafter.

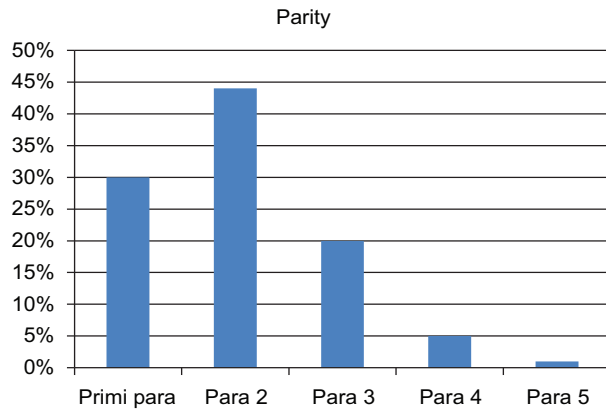


Fig.-2: Bar diagram showing parity

Distribution of study group according to educational level shows that, most of the couples have education above primary level.

Table-I
Distribution according to educational level

Educational distribution	Postpartum insertion	Post-abortion insertion
Up to primary	28.31%	27.61%
Up to level eight	13.27%	18.09%
S.S.C	21.38%	18.09%
H.S.C.	15.04%	23.80%
Graduation	15.04%	7.61%
Post-graduation	3.53%	4.76%

Most of the women in our study were housewife and some are service holder, which reflects the working status of women of our country.

Table-II
Distribution according to occupation

Occupation	Percentage
Housewife	65.59%
service holder	22.47%
Students	1.83%
self employed	3.66%
business women	6.42%

Every method has its own benefits and side effects. In this study the main side effects of CuT we found are menstrual abnormality and cramp like pain.

Table III
Side effects express by study group

Complains	In postpartum insertion	In post-abortion insertion
Menstrual abnormality (menorrhagia, irregular bleeding, spotting)	17.69%	20.95%
Cramp like pain	20.35%	23.80%
Coital problem from husband	3.53%	5.71%
Signs of PID	0.88%	-
Displaced	1.76%	-

We find out that discontinuation rate is less when we counsel both the partners.

Table IV
Frequency of continuation and discontinuation in the study group

Method	Continued	Discontinued
Postpartum	96.46%	3.54%
Post-abortion	95.23%	4.76%

Those who did not continued these methods, do it on an average after 2.75 months in postpartum insertion and 7 months in post-abortion insertion.

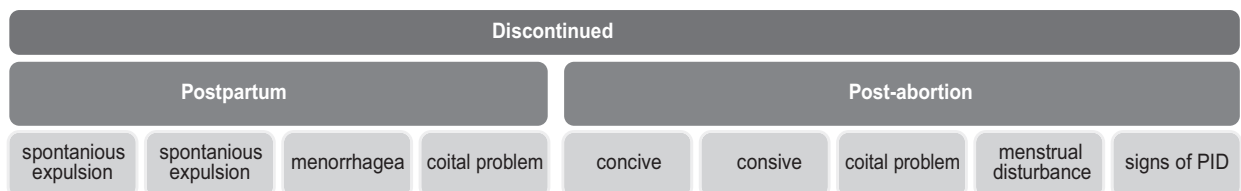


Fig .-3: Smart art showing causes of discontinuation found in the study group

Discussion:

The objective of an ideal contraceptive counseling is to Help couples understand their risk of unplanned pregnancy and ensuring that high quality postpartum family planning services are available to them. IUD insertion after termination of pregnancy provides a good opportunity to achieve long term contraception with minimal discomfort to the woman.

Majority of participants accepted the method when they were given information after hospital admission and just before the method given. Those patients who were willing to accept during the antenatal care and counseling become reluctant later on as they were more exposed to rumors and myths regarding Cu-T. A randomized prospective study found that some women received information on contraception in antenatal care and some did not, found no difference in subsequent contraceptive use.⁸ Many studies have shown that when the husband is involved in counseling and decision making the acceptance and continuation rates were higher.

Age distribution of women showed majority 32% and 30% belongs to age group 31 to 35 and 26 to 30 years respectively. Age wasn't significantly associated with Cu T acceptance or discontinuation rate.

No nulli-parous women had Cu-T inserted. Cu-T use was highest after 2nd child and declined thereafter. Similar findings were also noted by Duolao Wang *et al.*⁹

The main side effects of Copper containing IUD usage are prolonged or excessive bleeding, irregular bleeding and abdominal pain. In present study 17.69% and 20.95% women had menstrual disturbances and 20.35% and 23.80% women had pain in lower abdomen respectively in postpartum and post-abortion insertion. These findings suggest that there is room for strengthening IUCD counseling services, particularly regarding normal side effects and complications that arise from method use. In my study there was one case of vaginal discharge and infection in postpartum insertion. A limitation of the present study is that, infection was based on self report and examination findings, not corroborated by medical records or microbiological confirmation. In a study it was found that using Cu T 200 B in immediate post-partum period, 27.23% women were found to have heavy bleeding during menstruation.¹⁰ Neither of the women in their study complained of pain in lower abdomen or abnormal vaginal discharge nor did any of them had any sign of PID.

A study reported postabortion follow-up rates varying from 35% to 60%.¹¹ We investigated the 1st, 6th and 12th months outcomes and, in our study, follow up rate was

84.95% at 6 months. Another study also showed high rates of continuation and satisfaction among women who had undergone immediate post-abortion IUD insertion; 72.9% women reported continuing the IUD after one year.¹²

The outcome of postpartum insertion of IUD at different time interval was compared during postpartum period. The evidence demonstrated complications among women who had an postpartum IUD inserted had less complications than interval insertion.¹³ In current study when compare done between postpartum and post-abortion insertion, result didn't vary much.

In my study we found two cases of missing strings or displaced device with postpartum IUD insertion, but none with post-abortion insertion. However ultrasound done in both of them and found the device in-situ and counseling and reassurance encouraged them to continue with the device.

In our study removal was done in 3.54% and 4.76% respectively in postpartum and post-abortion women. The causes for discontinuation were expulsion, menorrhagia and coital problem in postpartum insertion and in post-abortion insertion causes were wants new pregnancy, menstrual disorder, coital problem and lower abdominal pain with per-vaginal excessive discharge. In a study the authors used Multiload Cu 380A immediately after vaginal delivery and caesarean section. The expulsion/removal rate was 14.8% among the subjects in vaginal delivery group, but there were 3.8% expulsions in those submitted to caesarean section.¹⁴ In my study also discontinuation rate was more in IUD insertion after abortion (4.76%) as compared to after delivery insertion (3.54%). We found only one case of spontaneous expulsion in postpartum insertion. Two large (n=3,704) WHO studies were conducted, the first related to immediate IUD insertion after first-trimester surgical termination of pregnancy and the second after dilatation and curettage for miscarriage. For both the trials, the expulsion rates at 24 months varied from 4.4% to 13.2% and the continuation rates at 12 months from 54% to 63%.^{15,16}

Conclusion:

Use of IUCD was high in 26 to 35 years age group and the users were mostly multiparas. IUCD use is low in graduate and postgraduate women. Most of the user were housewife showing the normal cultural history of our country.

Menstrual abnormality and cramp like abdominal pain were the major adverse effects experienced by the study group.

Most of the study group continued IUCD successfully with very low rate of discontinuation.

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