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Research Article

POST PLACENTAL INTRA CAESAREAN CU T AS SAFE AND EFFECTIVE METHOD OF CONTRACEPTION

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ABSTRACT

The immediate postpartum period is an important time to initiate contraception as women are more likely to understand the need for contraception and are highly motivated and receptive to accept family planning methods. Also immediate postpartum period offers a unique opportunity both for health care providers and the patient to plan for contraception. PPIUCD has distinct advantage during postpartum period as it does not interfere with breast feeding, doesn't require user compliance, is reversible and free from serious side effects of hormonal contraception. Intra-caesarean section PPIUCD is easy, safe, effective, long acting and reversible contraception with low expulsion and failure rate and high continuation rate with only minimal minor side effects.

INTRODUCTION

Population growth has been a cause of worry for the Government of India since a very long time. Family planning is important not only for population stabilization, but it has been increasingly realized that family planning is central to improve maternal and newborn survival and health. Even though, India has made considerable progress in reducing Maternal Mortality Ratio, it still contributes 20% of maternal deaths worldwide, according to a 2012 report of World Bank, UNFPA, WHO. Family planning can avert more than 30% of maternal deaths and 10% of child mortality if couples spaced their pregnancies more than 2 years apart. Though data is not available for all countries this unmet need is about 13% in South Asian region and about 24% in African region as per WHO. Just after independence, the Family Planning Association of India was formed in 1949. The country launched a nationwide Family Planning Programme in 1952, a first of its kind in the developing countries. Over the years India's family planning programme has evolved with the shift in focus from merely population control to more critical issues of saving the lives and improving the health of mothers and newborns. Ensuring healthy timing and spacing of pregnancies is now considered the most important intervention for reproductive, maternal, neonatal, child and adolescent health (RMNCH+A)[1].

In the face of the new and recurring anxieties and concerns around family planning and contraceptive use it is necessary to review the changes that have taken place over the years which have substantially altered the context in which family planning and contraceptive use take place.

India started the first national family planning programme in the world nearly sixty years ago. Those were very different times with different realities. The life expectancy of the average Indian was more than thirty years less than it is today (thirty five years to sixty seven years), the average number of children a woman had in her lifetime was about six and about more than one fifth of infants born did not see their first birthday. Contraceptive usage had begun earlier, but interestingly female sterilization, the most common contemporary contraceptive, did not exist as we know it today. Since then India's family planning programme has had a chequered history. From being a programme which was seen as being essentially supportive to a more robust maternal and child health programme it became so big that it overwhelmed the entire health programme in the size of its scope and budget as the fears of a 'population explosion' overwhelmed planners. From seeing development as the best contraceptive (1974), Indian policy makers moved to a radically different policy of forced sterilization within a very short time span (1975 – 77). Over time men's involvement in family planning fell and it became an entirely target driven numbers game where all government officials from the subordinate village school teacher to the District Collector being judged by the number of

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'tubectomies' they delivered in a year (twenty point programme of the 1980's). Some degree of sanity was restored when post- ICPD (International Conference on Population and Development, Cairo1994), India went into a target free, reproductive and child health regime (1996 -97), adopted a new National Population Policy (2000), which called for an integrated approach which transformed itself over the years into a more holistic National Rural Health Mission (2005). In the interim the spread of HIV/AIDS had introduced the new paradigm of dual protection with the consequences of unsafe sex being linked to both unwanted pregnancy as well as sexually transmitted infections. But somehow this concern remains isolated from mainstream health policy concerns in India today.

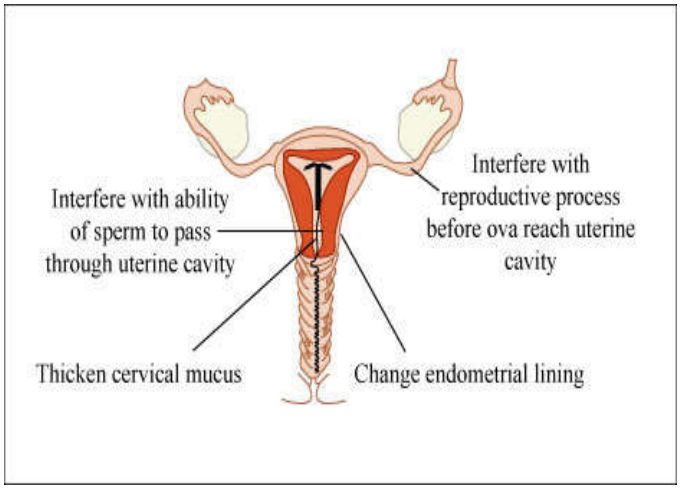
IUCD in the form of Lippes Loop was introduced in the National Family Welfare Programme of the Government of India (GOI) in 1965. Based on the results of clinical trials conducted by the Indian Council of Medical Research (ICMR) in 1972, Copper T 200 B was introduced in the programme in 1975. In 1997, ICMR conducted a comparative study between IUCD 200 B and 380 A based on which Cu IUCD 380 A was introduced in 2002, replacing Cu T 200 B in the programme. In 2010, postpartum IUCD (PPIUCD) service was introduced in facilities with high case-load of deliveries. From 2010 till now, postpartum IUCD services are being scaled up in a phased manner throughout the country. In 2012, the Cu IUCD 375 was introduced so that women could choose between Cu IUCD 380 A with a lifetime of 10 years and Cu IUCD 375 with a lifetime of 5 years[2].

The Cu T 380 A contains a T-shaped polyethylene frame with 380 A^0 (Armstrom units) of exposed surface consisting of fine copper wire wound around a vertical stem and copper collars on each of the horizontal arms. There is a 3 mm ball at the base of the stem to decrease the risk of cervical perforation. A white or clear polyethylene monofilament string is knotted through this ball. The frame contains barium sulfate to make it radiopaque. All copper-containing IUCDs have a number as part of their name. This is the surface area of copper (in square millimeters) the IUCD provides[3]. The device is latex-free and clinically relevant allergy to copper is extremely rare[4].

The intrauterine device is an effective long lasting and reversible method of birth control. Cu T 380 A is highly effective that can be safely used by all women regardless of breast feeding status. IUCD (Cu T 380 A) insertion have many advantages like simplicity, minimal motivation, reversibility, free of cost availability, no systemic side effects and high continuation rates[5].

Mechanism of contraception Action of Copper IUDs

Various hypotheses have been advanced for mechanisms of action of IUDs, including interference with sperm transport, ovum development, fertilization, and implantation. Until about 1980, it was thought that an IUD acted by preventing a fertilized egg from implanting in the uterus. The consensus of informed opinion has changed, however; it is now believed that copper IUDs greatly reduce the likelihood of fertilization. Recent data and analysis [6,7,8] indicate that the main antifertility effects of copper-bearing IUDs involve inhibition of egg or sperm transport and/or the capacity of sperm to fertilize eggs, through cytotoxic and phagocytic effects. Reduced gamete transport and capacitation inhibits fertilization and occurs before the ovum reaches the uterine cavity. Figure describes the mechanisms of contraceptive action of an IUD placed high in the uterine cavity and continuously releasing copper.



Mechanism of contraception Action of Copper IUDs

Continuous copper release into the uterine cavity from the wire and sleeves enhances the contraceptive effectiveness of the Copper T 380. In one study of women about to undergo sterilization, sperm were recovered from the fallopian tubes of women using no contraception 15 to 30 minutes after insemination, but no sperm were found in the tubes of IUD users at the same postcoital time (Ortiz and Croxatto, 1987)[6].

According to WHO medical eligibility criteria an IUCD can be inserted within 48 hours postpartum[9]. A 2010 Cochrane review concluded that PPIUCD are safe, effective contraceptive methods Insertion of IUCD in postpartum period has additional advantages of safety due to blunt insertion technique, and certainty of women being non pregnant. Integrating IUCD insertion with delivery services optimizes opportunities for women to obtain an appropriate long term, reversible family planning method before returning home. Also it is seen that women are highly motivated and receptive to accept family planning methods during the postpartum period and this is the best time when a woman is in contact with the health care facility. Survey show that 40% of women in the first year postpartum intend to use family planning method, but are not doing so[10]. Institutional deliveries have increased significantly all across the country thereby creating opportunity for providing quality post partum family planning services.

Immediate postpartum insertion of IUCDs has been practiced in China since 1975. The insertion of IUCDs is now gaining popularity as a method of postpartum contraception worldwide. The Indian Government is also focusing programmatic attention to postpartum IUCD insertion. In India postpartum IUCD program is undertaken by Family planning division of Ministry of Health and Family Welfare under Janani Shishu Suraksha Yojana, National Rural Health Mission The Government of India supplies Cu T 380 A free of cost in all government institutes[11].

Immediate post placental IUCD insertion (PPIUCD) during caesarean section provides a good opportunity to achieve long term contraception with minimal discomfort to the women. It is being increasingly practiced after reported safety and lower expulsion rates following intra-caesarean IUCD insertion[12].

The efficacy of intra caesarean section IUCD insertion without any added risk has been reported by various studies. In a controlled trial comparing intra-caesarean IUCD insertions at

caesarean section with non-intervention controls, only a few complications were reported, and no difference was found in puerperal morbidity or infection[13].

Zulficar *et al*. (2011)[14] in their study to determine the safety (infection, conception rate and perforation) of PPIUCD in caesarean section in 50 women who had inserted IUCD and found that postpartum infection rate was 5 times higher (10%) higher in patient in PPIUCD with comparison to who had LSCS but no PPIUCD insertion. Also lochia was slightly heavy (4%) in women with Cu T. Thread visibility after 6 months was 92 per -cent.

In the study by Gupta *et al*. (2013)[15] the expulsion rate was three times higher (6.6%) in women having PPIUCD insertion after vaginal delivery whereas a much lower expulsion rate (1/3rd) in women who had caesarean section with IUCD insertion which was about 2 percent. Continuation rate was comparable in both the groups which was 87.33% after vaginal delivery and 92.66% after caesarean section. Removal of Cu T was done in 8 out of 150 cases of PPIUCD insertion with caesarean section and main cause of removal was bleeding. Total 16 per cent of women had complications and most common complications were bleeding (5.3%), discharge (5.3%), pain (2%), missing tread (1.2%) and expulsion (2%). Majority of cases who accepted PPIUCD belonged to age group of 20-25 years.

In a study conducted by Mishra *et al*. (2013)[16] with a objective to determine the safety of post placental intrauterine device insertion at the time of caesarean delivery in which 200 women were counseled regarding interauterine contraceptive device insertion at the time of caesarean section and 100 women who agreed for the procedure were allocated to the study group and remaining 100 were allocated to the control group and concluded that women had minimal complications and the complications that did occur were the same as those associated with normal caesarean section without intrauterine device insertion. Thus from this study they came to the conclusion that intra caesarean intrauterine device insertion can be a practical, safe, convenient and acceptable contraceptive method and with adequate selection of patients it can be a secure and helpful method for the fertility control for rural women with high risk of reproduction.

On study of 240 trans-caesarean insertion of IUCD Arshad *et al*. (2014)[17] observed satisfaction rate of 89.9 per cent. Minor problems encountered were backache and pain abdomen in 15 per cent, PV discharge in 13.12 per cent and in their study cumulative expulsion rate was 2.8 per cent at the end of 6 months follow up. They further concluded that trans caesarean insertion of IUCD is a unique and highly effective method of family planning to address the unmet need of family planning in developing countries where women had limited access to medical care and they do not come for post natal counseling and contraception. It is convenient to both women and health provider.

Gaikwad and Gurram (2014)[18] studied 122 pregnant women to determine the efficacy and safety of immediate postpartum IUCD insertion during caesarean section and found that the most common indications for caesarean section were a previous caesarean section (43%) and breech presentation (17%). Of the subjects, 73% were multifarious, 67% had used an IUD before and 61% wanted to have more children. Of the 122 subjects, 68% had received prenatal care, and 64% had received family planning counseling. The remainder of the patients received information about IUCD use at the time of hospitalization, prior to caesarean delivery. There were no serious complications associated with immediate postpartum IUCD insertion. At the end of 6 months there was no incidence of unplanned pregnancy. Intrauterine device expulsion occurred in 26 subjects, with the cumulative expulsion rate of 17.6 per 100 women. In addition to spontaneous expulsions, the IUCD was removed for bleeding/ pain (4.2%) or other medical reasons (1.2%). Also, 1.2% of the subjects discontinued IUCD use for planned pregnancy, and 1.2% discontinued for other personal reasons. The cumulative continuation rate was 81.6% at 6 months. All over they did not encounter any serious complications and there was no case of endometriosis and uterine perforation.

In a study of 300 cases of intra caesarean insertion of Cu T 380 A Singal *et al*. (2014)[13] during 12 months of follow up observed acceptance of PPIUCD was maximum in age group of 21-25 years which was about 65.33 per cent and continuation rate of 91 per cent at the end of 12 months follow up. Febrile morbidity was the most common complication in immediate post insertion period (2%). The most common adverse events at 6 month of follow up were menstrual complaints (8.99 %), vaginal discharge (9.34 %) and pelvic pains (10.73 %). In their study the failure rate was 0.35 per 100 women. Expulsion of IUCD is an important factor to effect efficacy of the device. They further concluded that PPIUCD 380 A insertion was safe and effective with low expulsion and high continuation rate and it can contribute significantly to increase the use of IUCD as long acting contraception in our population.

In study by Gautam *et al*. (2014)[19] found that out of 820 women, 296 (36.09%) women accepted trans-caesarean insertion of Cu T 380 A whereas only 11.3 per cent accepted PPIUCD after normal vaginal delivery. Bleeding problem (19%) was most common followed by missed thread (11.7%). Mishra Sujnanendra (2014)[20] in his study of 100 women who underwent Cu T 380A insertion during caesarean section found that there was no difference in post operative complication rate between the women who had caesarean section with IUCD and women who had caesarean section but no IUCD insertion. Post operative bleeding was 15 per cent in both groups and post operative infection rate was 5 and 7 per cent, respectively with postpartum endometriosis and infections. They found that women had minimal complications and the complication that did occur was same in the women with caesarean section with Cu T 380 A insertion and caesarean section without intrauterine insertion.

Sharma *et al*. (2014)[21] evaluated the safety, efficacy, side effects, complications and expulsion related to PPIUD and compared the outcome of PPIUD insertion after vaginal delivery and caesarean section and reported that in 61.45% women there was no complaint. Menstrual disturbances were found in 16.66% women and pelvic pain in 13.54% women. Incidence of menstrual disturbances and pelvic pain was more in postplacental insertion as compared to intra-caesarean insertion. The expulsion rate was 5.20% and IUD removal was done in 13.54% women. Incidence of removal was more in vaginal insertions than in caesarean insertions and this difference was statistically significant. Continuation rate at 6 months was 81.25%.

Halder *et al*. (2014)[22] conducted a prospective study to evaluate vaginal insertion and intra-caesarean insertion of post-partum intrauterine contraceptive device and found that acceptance of PPIUCD was best in the age group of 21–25 years (40 and 44 %) followed by 25–30 years (31 and 23 %). In their study, expulsion rate was 2% among intra-caesarean insertion of Cu T 380 A. Five percent of mothers had vaginal bleeding, 4% complained of pain abdomen in which 1% of women had Cu T removal. Total removal of PPIUCD in caesarean section was 4%. In their study there was no case of pregnancy with Cu T in situ in the first year of follow up. One percent of mothers presented with complaints like PID. 30% of women with missing thread and 83.7% of women had visible thread at 18 months follow up. So they concluded that PPIUCD may become best choice for postpartum contraception after vaginal as well as caesarean delivery.

Singh *et al*. (2015)[23] evaluated the efficacy, expulsion and safety of post placental and intra-caesarean insertion of intrauterine contraceptive devices. In this study bleeding was the most common complication in 15.6% cases, missing thread in 3.5% cases, there was no case of perforation and other major complications. They also found that acceptance rate was 46.27 per cent, expulsion rate was 10.63 per cent while removal rate was 7.74 per cent and the continuation rate was 81.62 per cent.

In a study by Garuda *et al*. (2015)[24], in 220 patients delivering by caesarean section with post placental Cu T 380 A insertion, 28 were lost to follow up and out of remaining 192 minor complications were expulsion (12), bleeding (20), string not visible (32), infection (4), Cu T removal (20) and in 160 patients Cu T was continued giving a continuation rate of 83%. At the end of 6 months follow-up, there was no pregnancy with Cu T in situ. In their study they found statically significant higher incidence of expulsion rate and post insertional bleeding in women having emergency caesarean section as compared to elective caesarean section, where as there was no significant difference in string visibility among elective and emergency caesarean section.

Maluchuru *et al*. (2015)[25] performed a study to evaluate the efficacy, safety, compliance of immediate post-partum IUD insertion in women delivering vaginally or by caesarean section in a tertiary care facility, during a period of 2 years. They observed complications in 62 women out of 200 women followed up like bleeding (11.5%), expulsion (3.5%), and string not visible (16%). They also found in the study that the rate of expulsion was high between one to four weeks (2.5%) as compare to first week (0.5%) and after 4 weeks (0.5%) and removal in 5.5% of women. Bleeding and menstrual disturbance was most common reason for removal. It was further concluded that PPIUCD Cu T 380 A is safe and effective with low expulsion and low side effects and high continuation rate. The continuation rate in their study was 91 per cent.

Vidyarama *et al*. (2015)[26] evaluated the acceptance of IUCD as an immediate family planning method following delivery, its complications and continuation rates and showed that out of 11,278 total women who were counseled 959 women accepted the method, out of which 83.78% were after caesarean section and 156 women (16.2%) after vaginal delivery. Spontaneous expulsion was seen in 5 (0.5%) cases with continuation in 881 (91.8%) number of cases. Complications noticed were pain (0.3%), bleeding (0.2%), missing threads (1.1%) and misplaced IUCD (0.01%) after 6 months follow up.

A study on the complications of immediate post-partum IUCD insertion was conducted by Jisha (2015)[27] on 100 women who had PPIUCD out of which 68% after caesarean section and 32 per cent after normal vaginal delivery. There was no expulsion in the subjects who had intra-caesarean insertion and all the expulsions were among those in the trans-vaginal route, which was 9.4% (3 cases out of 32). At the end of six months follows up, 91% of the subjects continued with this method as removal of IUCD was done for excessive bleeding PV, abdominal pain and for sterilization in 3 cases each in caesarean and normal vaginal delivery. At the end of the 6 months follow up, thread was visible in 64.6 per cent of cases (42 out of 65 cases) having caesarean section with IUD insertion.

Levi *et al*. (2015)[28] in their study on intra-uterine device placement during caesarean delivery screened 172 women and 112 women were randomized into two groups with 56 each in to PPIUCD insertion with caesarean section and interval IUCD insertion. Baseline characteristics were similar between groups. Data regarding IUD use at 6 months postpartum was available for 98 women, 48 and 50 women in the intra-caesarean and interval groups, respectively. A larger proportion of the women in the intra-caesarean group were using an IUD at 6 months postpartum ((40/48), 83%) compared to those in the interval group ((32/50) 64%, relative risk [RR]=1.3, 95% confidence interval [CI]: 1.02, 1.66). Among the 56 women randomized to interval IUD insertion, 22 (39%) of them never received an IUD; 14 (25%) never returned for IUD placement, five (9%) women declined an IUD, and three (5%) had a failed IUD placement. In intra-caesarean group there were 4 expulsions which occurred at third week post partum and 15% of women had IUCD removal prior to 6 months post partum. 92 % of women were satisfied with their IUCD.

Mohamed *et al*. (2015)[29] conducted a study to assess effect of post puerperal and immediate post placental insertion of intrauterine contraceptive devices after caesarean delivery on women's health and found that the mean age of the participant's was 25.88±4.450. Excessive irregular bleeding, back ache, abdominal pain and pelvic infection were found among 31.3. 33.3, 47.5 and 37.5 per cent, respectively among women who had immediate post placental insertion of IUCD after caesarean delivery. IUD was not confirmed clinically in 2.2% during six months after IUD insertion. They concluded that immediate post placental caesarean IUD insertion is highly effective contraceptive methods.

A prospective study was carried out by Soni *et al*. (2016)[30] to evaluate postpartum intrauterine contraceptive devices (PPIUCD) with a sample size of 300 women (150 caesarean and 150 vaginal deliveries). They observed that the proportion of women accepting PPIUCD was 27.98% in vaginal and 36.95% in caesarean deliveries. Complaints were reported in 42% of cases in vaginal and 24.7% of cases in caesarean group. However, there were no serious complications reported like perforation, infection or failure of contraception. The minor complications in vaginal and in caesarean deliveries were excessive bleeding (8.0 & 6.0%, respectively) and pain (14.7 & 9.3%, respectively).

A Cross Sectional Study on Acceptability and Safety of IUCD among postpartum mothers was conducted by Jairaj and Dayyala (2016) at Tertiary Care Hospital. They found

acceptance of PPIUCD was low. However women undergoing caesarean section were accepting PPIUCD (43.9%), more frequently than those who underwent normal vaginal delivery (6.3%) and the difference was statistically significant. Main reported complications were pain abdomen (17.14%), bleeding (14.28%). Expulsion rate was 6.8%. Most common reason (40%) for removal of IUCD was inclination to other methods[31].

Malathi and Patalay (2016)[32] evaluated the efficacy, safety, and compliance of intra caesarean IUD insertions. During the three year study they counseled 4141 women out of which 2850 accepted PPIUCD insertion. In their study various complications observed were expulsion in 6, IUCD in situ with pregnancy in 1, bleeding in 33, string problem in 363, removal in 28 cases and continuation of PPIUCD in 2745 cases at the end of 1 year. They concluded that immediate PPIUCD insertion during caesarean section provides highly effective contraception.

An interventional prospective study was carried out by Rahman and Banerjee (2016)[33] at Silchar to evaluate and compare the safety and efficacy of vaginal and intra-caesarean insertion of Post-partum IUCD where PPIUCD were inserted in 290 mothers and they found that acceptance of PPIUCD was best in the age group 21-25 (42% and 45%) followed by 26-30 years (27% and 23%). Primipara mothers accepted PPIUCD more than others. Vaginal bleeding was complained by 12% in vaginal and 6% of women who underwent caesarean section. Pain abdomen was 6% and 8% in both groups, respectively and 2% of each group presented with infection. Expulsion rate was 4% in vaginal insertion group and 2% among intra-caesarean group which was not statistically significant. Missing strings were complained by 16% of mothers in vaginal group and 30% of mothers in intra-caesarean group which was statistically significant (p=>028). Total removal of PPIUCD was 7% in vaginal group and 6% in caesarean group which was not statistically significant. In 3% cases of removal was partial spontaneous expulsion in vaginal group and 2% partial spontaneous expulsion was found in caesarean group. They concluded that PPIUCD was very effective contraceptive both after vaginal as well as caesarean section.

In a prospective study on 116 women to compare the safety and efficacy of PPIUCD inserted at caesarean (58) versus vaginal delivery (58) Shanavas *et al*. (2016)[34] showed that PPIUCD is an effective intervention in both caesarean and vaginal delivery with no significant differences in safety and efficacy depending on the route of insertion. Follow up clinic attendance of PPIUCD were 110 (94.83%). 16 patients (14.7%) had menstrual problems in the form of irregular spotting and dysmenorrhoea, but only 5 patients (4.3%) had persistent menorrhagia at the end of one year. 3 patients (2.7%) had fever at 6 weeks follow up which was attributed to UTI, mastitis and LRTI. They found no significant association between maternal complaints and route of insertion and also between line satisfaction and route of insertion. Though missing thread was significantly higher in caesarean section.

Bedi *et al*. (2016)[35] carried out a prospective study to assess the safety and expulsion rate of copper T380A in immediate post-partum period during caesarean section in which a total of 200 women underwent postpartum intra-caesarean insertion of copper T 380A. And 16 women lost to follow up. Acceptance was more in the multigravida. The mean age of women included in the study was 25.65±2.42 years. Most common post-insertion complication observed in the immediate postoperative period was excessive bleeding. The common adverse events observed during follow-up of 6 weeks were menstrual complaints, excessive vaginal discharge and persistent pelvic pain. At the end 6 weeks, there were 6 expulsions, 4 removals, and gross cumulative expulsion, removal, failure and continuation rates of 3.2%, 2.2% and 5.4%, respectively.

Nayak and Jain (2017)[36] in a retrospective analytic study found that Acceptance rate was low (25.32%). Acceptance was higher in the age group of 26-30 years (35.3%), para-2 (42.84%) and those undergoing caesarean section (69%). About 32.2% of acceptors came for follow-up. The main complaints at follow-up were missing thread and bleeding. Expulsion rate was low (2.91%). Continuation rate was 85.3%. No case of perforation, failure or any other major complication reported. The main causes of removal were bleeding (39.3%) and pressure from family (35.1%). Higher rate of expulsion 2.12 per cent was seen between 7 day and 6 week of PPIUCD insertion and was low after 6 weeks (0.7%).

While studying the efficacy and safety of post-partum intrauterine contraceptive device (PPIUCD) insertion Agarwal *et al*. (2017)[37] found that expulsion rate was 17.85% and there was no expulsion in intra-caesarean PPIUCD insertion which is statistically significant ($P < 0.01$) as compared to postplacental insertion. Excessive discharge (7.83%) and missing strings (2.61%) were minor complications. They also found that 2 women (1.74%) had failure of PPIUCD at 6 months follow up.

Gupta *et al*. (2017)[38] studied the acceptance of intra caesarean IUCD as method of contraception and reported that majority of women belonged to age group of 21-30 years (76%) with mean age of 25.5 years, 54% were para 2 and 94% of clients were literate. They found that the complications like pain (9.1%), abnormal uterine bleeding (9.1%) and spontaneous expulsion in 27.3% of cases. There was no case of perforation.

Rishard *et al*. (2017)[39] determined the safety and success rates of immediate post caesarean IUD insertion and reported that Mean age of the study population was 27.1 (SD=0.4). There were 261 (53.7%) primiparous women. Multigravid women with more than three deliveries were 26(5.5%) The study population was dichotomized into those who underwent PPIUD insertion following VD 364 (75.1%) and those who underwent the same following CS 121 (24.9%). Out of 121 CSs, 99 (81.8%) were emergency CSs. With regard to the morbidities, the commonest complaint in the CS group was abdominal pain (8; 6.6%), followed by abnormal vaginal bleeding (5; 4.1%). In the VD group, 3(0.8%) complained of abdominal pain and 7 (1.9%) complained of abnormal vaginal bleeding.

Post placental intra caesarean Cu T seems to be safe and effective method of contraception with low expulsion, minimal side effects and high continuation rates. Thus, it can contribute significantly to increase the use of IUCD as a long acting reversible contraception in Indian population. Thereby decreasing the chance of unwanted pregnancy with its complication leading to improved neonatal and perinatal outcomes.

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