## **ORIGINAL ARTICLE**

# Complications and Safety of Intra-Caesarean Insertion of IUCD

SHABANA KHOKHAR, WAJIHA RIZWAN, MUNAZZA TAYYAB

## **ABSTRACT**

Aim: To evaluate the acceptability and determine complications of patients having PPIUCD in our setup.

**Methods:** This case series was carried out at department of obstetrics and Gynaecology, Rangers Hospital, Lahore. The study was carried out from January 2015 to June 2016. A total of 500 were counseled for PPIUD but only 200 patients gave the informed consent. In all these patients, IUCD was placed into the uterus after delivery of baby. All the patients were followed up at 6 weeks and 6 months regarding complications and satisfaction of patients. All data were analyzed using SPSS version 20.

**Results:** Most commonly narrated reason in those who refused to be included in the study was refusal by their partner. We also asked from those who accepted this method for reason of choosing this particular method only, the main reason was found that they believe in doctor and have no particular reason, followed by it being a reversible procedure. One eighty seven women came for follow up. The most common complication observed was inability to see strings. At 6 months follow up, most common complication was bleeding.

**Conclusion:** We conclude on the basis of his study that PPIUD insertion in women is very safe and effective with low expulsion and high continuation rate. Women who received PPIUCD show a high level of satisfaction with this choice of contraception, at the same time, we recommend roper counseling of both partners regarding this reversible technique of contraception.

Keywords: Contraception; PPIUCD; Complications; Intrauterine device

### INTRODUCTION

Even though there is considerable demand of family planning in Pakistan. The adoption of family planning has been hampered by government neglect, lack of services and misconceptions. Pakistan's fertility rate is 4.1% which exceeds those of neighboring south Asian countries while contraception use is lower than 35%, approximately one fourth of Pakistani women wish to either delay the birth of their next child or end child bearing altogether <sup>(1)</sup>. Family planning can avert nearly one third of maternal deaths and 10% of child mortality when couples space their pregnancy more than two years apart<sup>2</sup>.

The post-partum period is optimum time to help a woman. Women are more strongly motivated to do so at this time, which also has the advantage of being feasible for patients and health care providers3. Cu-T 380A is approved for the post-partum intrauterine contraception device. The Cu-T 380 A is very effective. There are only .6 to 8 pregnancies per 100 women in first year of use<sup>4</sup>. It can be used for ten years continuously or for whatever time period the woman wants to use. This approach of immediate post placentalUCD (PPIUCD) insertion is more applicable to our country where delivery may be the only time when a healthy woman comes in contact with healthcare provider. Other advantages of insertions of PPIUCD are that the discomfort related to interval insertion can be avoided and any bleeding from insertion will be disguised by lochia5. The main objective of this study was to evaluate the acceptability and determine complications of patients having PPIUCD in our setup.

## **MATERIALS AND METHODS**

This case series was carried out at department of obstetrics and Gynaecology, Rangers Hospital, Lahore.

Department of Obstetrics & Gynaecology, Rangers Hospital, Lahore Correspondence: Dr. Shabana Khokhar, Assistant Professor, Contact: 03213104423, Email: khokhar.shabana@gmail.com

The study was carried out from January 2015 to June 2016. The patients undergoing cesarean section (CS) and giving informed consent for the insertion of PPIUD were included in this study. A total of 500 were counseled for PPIUDbut only 200 patients gave the informed consent. We included all female patients of age 18-45 years, delivering by caesarean section (CS) at term gestation. Other inclusion criteria were: there should be no history of infections or Diabetes Mellitis; and those satisfying the WHO criteria for IUCD insertion. Our exclusion Criteria included:PROM more than 24 hours prior to delivery; Postpartum hemorrhage; and uterine abnormalities. In all patients in this following placental delivery, uterus was stabilized at fundus. IUCD was inserted manually into the uterus through uterine incision. The incision was closed and post-operative care was provided to all patients as per departmental protocols. All the patients were followed up at 6 weeks and 6 months regarding complications and satisfaction of patients in this study. All data were analyzed using SPSS version 20.

## **RESULTS**

Regarding parity, there was a diverse variation in this regard and most of the patients in this study were primigravida. All details are given in table 1. Also those 300 women, who declined to PPIUCD, were asked about reason for not giving the consent. All the reasons were given a particular code and 4 broad codes were identified. Most of the patients told the reason that it is refused by their partner. All the causes are summarized in figure 1. We also asked from those who accepted this method for reason of choosing this particular method only, the main reason was found that they believe in doctor and have no particular reason, followed by it being a reversible procedure. All the data is given in table 2.

All patients were followed at 6 weeks and 6 months. One eighty seven women came for follow up while 13 women were lost to follow up. The most common

complication observed was inability to see strings. Few patients needed to get an ultrasound done for the confirmation of IUCD in uterine cavity and they were found to be in situ. The patients were reassured and sent back for follow up at the later date. It was 17.6% at six weeks and dropped to 2% at six months follow up. At 6 months follow up, most common complication was bleeding. Table 4 shows complications noted at six weeks and six months follow up.

Table 1: Parity distribution of patients in this study

Parity	n	%age
1	80	40
2	54	27
3	56	28
4 or >4	10	5

Fig. 1: Reasons for not opting for IUCD

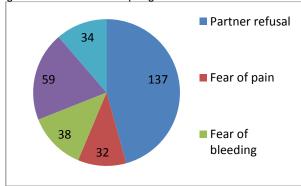


Table 2: Reasons for acceptance among the women included in study

Reasons for acceptance	Number (%)
Long term contraception	29 (14.5%)
Non Hormonal contraception	10 (5%)
Reversible method	36 (18%)
One time procedure	17 (8.5%)
Belief in doctor	78 (39%)
Has no interference in breastfeeding	30 (15%)

Table 3: Complication rate among study population

Complication	Follow up at	Follow up at 6
	6 weeks	months
Bleeding	30 (16%)	18 (9.6%)
Strings not visible	33 (17.6%)	15 (8%)
Expulsion	10 (5.3%)	4 (2.1%)
Infection	0 (0%)	0 (0%)
Pain abdomen	15 (8%)	10 (5.3%)
Perforation	0 (0%)	0 (0%)
Satisfaction	100 (53.4%)	131 (70%)
Removal	15 (8%)	8 (4.2%)

#### DISCUSSION

In a country like Pakistan, patients only come to healthcare professionals when they really need some help. Therefore, Postpartum IUCD insertion is an optimum time when healthcare provider can help a woman. It is an opportunity not to be missed in any case, in developing countries like ours where delivery may be the only time when a healthy woman comes in contact with healthcare provider. PPIUCD does not interfere with breast feeding, does not need

special arrangements and it's very cheap. Convenient for woman and a health care provider associated, with less discomfort and fewer side effects than internal insertions and allows women to obtain safe, long acting, highly effective contraception while already within medical system<sup>6</sup>.

The intrauterine device is an effective long lasting and reversible method of birth control <sup>(7)</sup>.Immediate post placental IUCD insertion during caesarean section provides a good opportunity to achieve long term contraception with minimal discomfort<sup>8</sup>. It is being increasingly practiced after reported safety and lower expulsion rates following intracaesarian insertion<sup>9</sup>.

In this study number of women accepted PPIUCD is around 40% which is little bit higher than studies conducted in India<sup>10</sup>. In an Indian study by Lakshmi et al, it was higher in those who had short pregnancy interval and with education level up to primary<sup>11</sup>. In this study, a significant number of women declined the PPIUCD because of partner refusal. This reveals the importance of partner involvement and counseling of partner. In our male dominate society it is very difficult to council a husband because he is reluctant to accompany a woman during her visits to antenatal clinics. In Asia postpartum study, husband's desire for IUCD removal was a significant reason for removal emphasizing the importance of involving the husband in prenatal counseling<sup>12</sup>.

Fear of complications and previous bad experience with IUCD are the other main reasons for refusal. The most common complications occurring in women in this study was non visibility of the strings (17.6%) which was most commonly seen at six weeks follow up. Bhutta et al reported string visibility of 92% and 96% at six months after intracaesarian and interval insertion respectively<sup>13</sup>. Other complications the women presented with heavy bleeding (16%), expulsion (5.3%) pain abdomen infection (0%). Rate of complications dropped at six months follow up. One study from turkey reported an expulsion rate of nearly 18% (14). According to an ICMR study on urban women pelvic pain is common symptom reported in 25 % users following interval IUCD insertion15<sup>15</sup>.

We conclude on the basis of his study that PPIUD insertion in women is very safe and effective with low expulsion and high continuation rate. It can contribute significantly to increase the use of IUCD as a long acting reversible contraception in Pakistani population. At the same time, we recommend roper counseling of both partners regarding this reversible technique of contraception.

## **REFERENCES**

- Hardee K, Leahy E. Population, fertility and family planning in Pakistan: a program in stagnation. Population Action International. 2008;3
- Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, Innis J. Family planning: the unfinished agenda. The Lancet. 2006;368:1810-27
- Xu J-X, Reusche C, Burdan A. Immediate postplacental insertion of the intrauterine device: a review of Chinese and the world's experiences. Advances in contraception. 1994;10:71-82

- Levi E, Cantillo E, Ades V, Banks E, Murthy A. Immediate postplacental IUD insertion at cesarean delivery: a prospective cohort study. Contraception. 2012;86:102-05
- Gupta A, Verma A, Chauhan J. Evaluation of PPIUCD versus interval IUCD (380A) insertion in a teaching hospital of Western UP. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2016;2:204-08
- Newton J, Harper M, Chan K. Immediate post-placental insertion of intrauterine contraceptive devices. The Lancet. 1977;310:272-74
- Thonneau PF, Almont TE. Contraceptive efficacy of intrauterine devices. American journal of obstetrics and gynecology. 2008;198:248-53
- Kapp N, Curtis KM. Intrauterine device insertion during the postpartum period: a systematic review. Contraception. 2009;80:327-36
- Eroğlu K, Akkuzu G, Vural G, Dilbaz B, Akın A, Taşkın L, et al. Comparison of efficacy and complications of IUD insertion in immediate postplacental/early postpartum period with interval period: 1 year follow-up. Contraception. 2006;74:376-81

- Gautam R, Arya K, Kharakwal S, Singh S, Trivedi M. Overview of immediate PPIUCD application in Bundelkhand region. J Evol Med Dent Sci. 2014;3:9518-26
- Garuda L, Kambham S, Neelohita B. Clinical Outcome of Ppiucd (Copper-380A)-Intracaesarean Insertion. Indian Journal of Obstetrics and Gynecology Research. 2015;2:218-26
- Singal S, Bharti R, Dewan R. Clinical outcome of postplacental Copper T 380A insertion in women delivering by caesarean section. Journal of clinical and diagnostic research: JCDR. 2014;8:OC01
- Bhutta SZ, Butt IJ, Bano K. Insertion of intrauterine contraceptive device at caesarean section. J Coll Physicians Surg Pak. 2011;21:527-30
- Blanchard H, Mac Kaig CA-F. Program. 2006. Postpartum contraception: Family planning method birth spacing after childbirth. Power point presentation.
- Çelen Ş, Sucak A, Yıldız Y, Danışman N. Immediate postplacental insertion of an intrauterine contraceptive device during cesarean section. Contraception. 2011;84:240-43