

Effectiveness of Postplacental Intrauterine Contraceptive Device Insertion in Multiparous Women

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ABSTRACT

Aim: To determine effectiveness postplacental intrauterine contraceptive device(PPIUCD) insertion in multiparous women.

Design: Descriptive Case Series

Place of study: Department of Obstetrics & Gynaecology, Sir Ganga Ram Hospital, Lahore

Duration: 6 months

Method: 150 multiparous women with normal vaginal delivery were included in study. Intrauterine contraceptive device was inserted as per operational definition. Effectiveness was recorded on a pre designed proforma. Results were computed using SPSS 14. Effectiveness was calculated as frequencies and percentages.

Results: Frequency of effectiveness of PPIUCD insertion reveals 97(64.67%) while 53(35.33%) did not show effectiveness.

Conclusion: We concluded that PPIUCD in multiparous women is highly effective and every patient who present with multiparity may b counseled for insertion of IUCD with good results.

Keywords: post placental UCD insertion, multiparous women

INTRODUCTION

Multiparity as a medical and social problem has been drawing the attention of gynaecologists in many countries, especially those with a tendency towards hyper populations, and simultaneously of clinicians in developed countries who want to examine and prevent all causes of perinatal morbidity and mortality¹.

Annually nearly 80 million unintended pregnancies are projected worldwide. In developing countries more than one third of all pregnancies are considered unintended and about 19% end in abortion, which are most often unsafe accounting for 13% of all maternal death globally².

The inter-censual growth rate of Pakistan varied between 2.45-3% from 1951-1998. However recently, the growth rate has declined to 1.9% in 2004 and 1.8% in 2008. In 2002, the Ministry of Population Welfare developed a program to reduce the countries growth rate to 1.3% by 2020³.

The intrauterine contraceptive device (IUCD) is a safe, highly effective, long-lasting means of contraception⁴. More than 150 million women use IUCDs, mainly in emerging countries, particularly in Southeast Asia and in the Middle East (30% in China)⁵. Nevertheless, the IUCD is certainly one of the most effective contraceptive methods, its failure rate is not negligible (estimated at 1-3), which leads

to a substansial number of unwanted pregnancies and subsequent induced abortions⁶.

Insertion of an IUCD immediately after delivery is appealing for several reasons. The woman is known not to be pregnant, her motivation for contraception may be high, and the setting may be convenient for both the woman and her provider. However, the risk of spontaneous expulsion may be unacceptably high⁷.

In a study, the effectiveness of IUCD insertion soon after placental delivery was determined which shows no expulsion in 76% within 6 months⁸. These statistics were recorded in primiparous women while the data for multiparous women is not available.

This study was conducted to determine the effectiveness of PPIUCD insertion in multiparous women, as with limited access to medical care, the delivery affords a unique opportunity to address the need for contraception. The results of the study will help to make decision for PPIUCD in women of our society as no load data is available.

MATERIALS AND METHODS

This descriptive case series was conducted in Department of Obstetrics and Gynaecology of Sir Ganga Ram Hospital, Lahore from 10th March 2013 to 14th July 2013. 150 multiparous women (para 3-5) with normal vaginal delivery and willing for birth control were included in the study after informed consent. Women with evidence of intrauterine infection, preterm birth (<34weeks), history of

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ante partum haemorrhage and ruptured uterus were excluded from the study. Clinical data was noted on a structured proforma.

METHOD OF INSERTION

A bimanual examination was done to ascertain uterine size and position. Next, a speculum is used to gain clear visualization of the cervix. At this time, cervical gonorrhoea and chlamydia tests should be obtained if indicated. Using a single-tooth tenaculum, grasp the anterior lip of the cervix. While providing gentle downward traction on cervix, use a uterine sound to assess the size of the uterine cavity. Sounding helps the provider appreciate the direction of the cervical canal and endometrial cavity, allows for assessment of patency, and allows for a basic assessment of intrauterine anatomy. If the uterus sounds to less than 6 cm or greater than 10cm, insertion should be stopped and further assessment of intrauterine anatomy with ultrasound should be considered.

IUCD is inserted into the insertion tubing. The loaded insertion tube is passed through the cervical canal until resistance is met at the uterine fundus and the blue flange should be at the external cervical os. With the solid white rod steady, the insertion tubing is withdrawn approximately 1 cm, releasing the IUD.

The insertion tube is then gently moved up to the fundus of the uterus, ensuring placement of the IUD at the level of the fundus. Holding the insertion tubing steady, withdraw the white rod. Then, gently withdraw the insertion tubing. The removal of insertion device, the IUD strings will be readily visualized in vagina. Using long-handled scissors, the strings are then trimmed so that approximately 3 cm are visible extending, from the external cervical os.

IUCD was inserted as per operation definition (on two months interval) regarding the effectiveness of PPIUCD. The effectiveness was recorded on a pre designed proforma.

Data analysis: Data was entered and analyzed in Statistical Package for Social Sciences (SPSS 14). Mean±Standard deviation was calculated for age. Frequencies and percentage were calculated for the effectiveness of post-placental IUCD insertion. No test of significance is required.

RESULTS

A total of 150 cases fulfilling the inclusion/exclusion criteria were enrolled to determine the effectiveness of post-placental insertion of intrauterine contraceptive device in multiparous women. Age distribution of the patients was done which shows that 46(30.67%) were between 18-30 years while

104(69.33%) between 31-35 years of age, mean±sd was calculated as 32.54±3.63 years (Table 1).

Frequency of effectiveness of post-placental IUCD insertion reveals in 97(64.67%) while 53(35.33%) did not show effectiveness (Table 2).

Stratification for frequency of effectiveness of post-placental IUCD insertion with regards to age was recorded which shows that out of 97 effective cases, 41(42.27%) were between 18-30 years and 56(57.73%) were between 31-35 years of age (Table 3).

Table 1: Age distribution (n=150)

Age(in years)	n	%age
18-30	46	30.67
31-35	104	69.33

Mean±SD: 32.54±3.63

Table 2: Frequency of effectiveness of post-placental IUCD insertion (n=150)

Effectiveness	n	%age
Yes	97	64.67
No	53	35.33

Table 3: Stratification for frequency of effectiveness of post-placental IUCD insertion with regards to age (n=97)

Age(in years)	n	%age
18-30	41	42.27
31-35	56	57.73

DISCUSSION

Insertion of an intrauterine contraceptive device (IUD) immediately after delivery has been recommended by the WHO, as one of the safe and effective methods of temporary contraception. In the immediate post delivery period the women are highly motivated and need an effective method for contraception so that the child can be brought up with a relaxed mind without the worry of unintended pregnancy. On the other hand, if they are made to wait for 6 wk for initiating an effective contraception, they may conceive accidentally or may not come for contraception. This approach is more applicable to our country where delivery may be the only time when a healthy woman comes in contact with health care personnel. Compared with sterilization, however, use of an intrauterine device (IUD) is simpler, less expensive, and immediately reversible. Insertion of an IUD after delivery may avoid the discomfort related to interval insertion, and any bleeding from insertion will be disguised by lochia. However, immediate post-partum IUD insertion may have disadvantages as well. The risk of spontaneous expulsion may be unacceptably high.

However, we planned this study to determine the effectiveness of post-placental IUCD insertion in

multiparous women, as with limited access to medical care, the delivery affords a unique opportunity to address the need for contraception. The results of the study may help to make decision for post-placental insertion of intra uterine device in women of our society as no load data is available.

In our study, 46(30.67%) were between 18-30 years while 104(69.33%) between 31-35 years of age, mean \pm sd was calculated as 32.54 \pm 3.63 years, frequency of effectiveness of post-placental IUCD insertion reveals in 97(64.67%) while 53(35.33%) did not show effectiveness, on stratification out of 97 effective cases, 41(42.27%) were between 18-30 years and 56(57.73%) were between 31-35 years of age.

The findings regarding effectiveness (expulsion) of IUCD insertion soon after placental delivery is in agreement with a study who determined no expulsion in 76% within 6 months⁸. Though these statistics were recorded in primiparous women while our data is relating to multiparous women which shows its equal efficacy in primipara and multiparous women also. Another study by Shukla M and colleagues⁹ recorded its cumulative expulsion rate at the end of 6 months is 10.68%.

Nathalie Kapp and co-workers¹⁰ determined the efficacy of intrauterine device insertion during the postpartum period and recorded that immediate IUD insertion (within 10 min of placental delivery) was safe when compared with later postpartum time periods and interval insertion. Immediate postpartum IUD insertion demonstrated lower expulsion rates when compared with delayed postpartum insertion but with higher rates than interval insertion. This is in agreement with the results of the current study, while the difference is that we only determined efficacy in immediate IUD insertion and not in delayed postpartum insertion.

Another study¹¹ conducted at Allied Hospital, Faisalabad during 1994 to 1995 and reported in 2002 to determine the safety and efficacy of IUCD (copper T380) as a contraceptive device recorded that IUCD especially the last generation of copper releasing device i.e. copper T380, seems to be one of the most appropriate contraceptive method for a developing country like Pakistan and concluded that IUCD is a highly effective method of contraception with patient acceptances as good as for other reversible methods such as the pill.

Çelen Ş and others¹² determined the efficacy and safety of immediate postplacental IUD insertion during cesarean section and recorded that there were no serious complications associated with immediate IUD insertion during cesarean section. The cumulative rates of expulsion, removal for bleeding/pain and other medical reasons were 17.6,

8.2 and 2.4 per 100 women per year, respectively. The continuation rates were 81.6% and 62% at 6 and 12 months, respectively and concluded that immediate postplacental IUD insertion during cesarean section provides adequate protection against pregnancy. However, greater than one fourth of the participants discontinued IUD use due to spontaneous expulsion or other medical reasons.

However, we are of the view that insertion of an IUD immediately after delivery is convenient for both the woman and clinician. Resumption of ovulation can be unpredictable after delivery, and an IUD provides highly effective contraception during the puerperium. Studies to date have not shown that IUDs interfere with lactation.

CONCLUSION

We concluded that post-placental insertion of intrauterine contraceptive device in multiparous women is highly effective and every patient who present with multiparous may be counseled for insertion of intrauterine contraceptive device with good results.

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