

Original Article

Insertion of Intrauterine Contraceptive Device (IUCD) at Caesarean Section after the Delivery of Placenta: An Experience with 60 Cases

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ABSTRACT

Objectives: To access the safety of Intrauterine Contraceptive Device (IUCD) insertion at Caesarean section after placental delivery.

Study design: Observational analytical study of cohort type.

Place and duration of study: Department of Obstetrics and Gynecology, Bolan Medical Complex Hospital, Quetta, from September 2009 to August 2010.

Patients and Methods: This prospective study was conducted in the department of Obstetrics and Gynecology Quetta from September 2009 to August 2010. Sixty patients who had IUCD inserted at cesarean section were studied and followed for six months. The age ranges from 20-45 years. Detailed history of each patient was recorded and thorough physical examination was performed. Patients with findings of any medical disorder were excluded. All analysis and computation including data base were done by SPSS 10.

Results: During the study period, a total of sixty women who had IUCD inserted at cesarean section were observed. All the cases were within age group ranging from 20-45 years of age. Out of them 53.3% were between 20 – 30 years, 28% between 31 -40 years, 18.3% belongs to 41-45 years of age. The events that were analyzed during the puerperium were pain, bleeding, infection and expulsion. Considering the postoperative complications, pain was the main complication during the puerperium and it occurred in 54% of patients. Endometritis were occurring in 25% of cases and heavy lochia in 21% of cases. The expulsion rate was 8.3%.

Conclusion: Women undergoing Cesarean section, who are suitable for using this method, should be given the option of IUCD insertion at the same time.

Key Words: cesarean section, intrauterine contraception device

INTRODUCTION

Pakistan is included in the upper seven most populous countries in the world, so the need for birth spacing exists and suitable strategies for birth spacing require implementation¹. Intrauterine contraceptive device (IUCD) is the second most common modern method of contraception used by women in regions with large populations, including countries like Pakistan². It is favoured by women who wish to adopt a contraceptive method that does not require regular motivation for use or husband's participation and other hormonal methods do not suit them³.

Mostly the IUCD is inserted vaginally after the puerperium as an interval procedure. Health care providers avoid the insertion of IUCD either during puerperium or in a scarred uterus (e.g. due to Caesarean section), for fear of perforating it or introducing infection⁴. With rising rates of Caesarean section⁵, the number of women who would be excluded from using this method of contraception would go on increasing sharply, if the same practice were to be encouraged.

This is despite the fact that a fair number of women undergoing Caesarean section are good candidates for using the IUCD for contraception. The insertion of IUCD at Caesarean section offers the Health care providers an opportunity to insert the IUCD into the uterus under vision, thus obviating the fear of perforating the uterus during the procedure. Moreover a lot of women fail to return for availing contraceptive services, once they leave hospital so the IUCD insertion at Caesarean section also offers women a chance to avail this method of contraception at the same time as they have Caesarean section.

However reported experiences of IUCD insertion at Caesarean section from Pakistan is limited, it is therefore needed that such studies to be undertaken to find ways of promoting birth spacing strategies when women present to Health facilities for other services like delivery, including delivery by Caesarean section.

PATIENTS & METHODS

It was an Observational analytical study conducted at the department of Gynecology and Obstetrics BMCH,

Quetta, over a period of one year from September 2009 to August 2010.

All the patients in the study were included on the basis of detailed history, physical examination and investigations. Detailed questioning regarding the age, parity, previous obstetrical history, history of any medical and surgical disorder were asked. The patients who have history of heavy/irregular periods, dysmenorrhoea, pelvic inflammatory disease, present pelvic infection, uterine fibroids, or structural uterine abnormality or previous removal of intrauterine contraceptive device for complications were not included in the study. In addition to this the patients, undergoing Caesarean section but having predisposing factors of postoperative infection, like rupture of membrane prior to admission or delivery of still born baby at Caesarean section, were also not included in the study. Each patient was examined thoroughly after complete and detailed history.

All the patients were undergone Caesarean section under general anesthesia and during the Caesarean section after delivery of baby, placenta and membrane IUCD was kept in the uterine cavity through the uterine incision and thread was pushed through the cervical canal into the vagina.

The patients were followed up to six months at regular intervals and any complaint, detailed menstrual history etc. were recorded. Their willingness to continue with the use of IUCD was asked for. If she wanted removal of IUCD, the reason for this was recorded. IUCD threads were visualized through per speculum vaginal examination. In the absence of the history of spontaneous expulsion or deliberate removal of the IUCD, the non-visualization of the thread was further investigated by x-rays and ultrasound examination of the pelvis.

All analysis and computation including data base were done by SPSS version 10. Mean \pm SD was computed for age. Analysis of different variables was performed using test of significance chi-square test.

RESULTS

This study consist of the 60 patients undergone Caesarean section, at department of Obstetrics and Gynecology of Bolan Medical Complex Hospital, Quetta during the period of one year from September, 2009 to August, 2010

Regarding the profile of women included in the study, there was no significant difference between their socioeconomic and educational status. There was no significant difference in the duration of their marriages. Less than a third of all women had ever use contraception before.

Regarding the age, all the cases were within reproductive age group ranging from 25 years to 45

years of age. Out of them 32 (53.3 percent) were between 20-30 years, 17 (28 percent) were between 31-40 years and 11 (18.3 percent) belonged to 41-45 years of age. The mean age was 33 years. (Table No.1)

IUCD insertion at Caesarean section did not put any untoward effect on puerperal morbidity or lactation. However among the postoperative and later complications, pain was the main complication during the puerperium and it occurred in 29 (48 percent) of patients. Endometritis were occurring in 14 (23 percent) of cases and heavy lochia in 12 (20.7 percent) of cases. The expulsion of the IUCD was recorded in 5 (8.3 percent) cases. (Table No.2). Among the five women, in whom the expulsion was suspected on basis of absence of the thread on per speculum examination of the vagina, in one of the women, IUCD was expelled in the vagina immediately after completion of the Caesarean section. In other four, the IUCD threads were not visible at eight weeks follow up, two of them have the history of spontaneous expulsion while other two did not have any recollection of these having been expelled. In these two cases the ultrasound scan of the pelvis and x-rays pelvis failed to show the IUCD, so these two cases were recorded as un-noticed spontaneous expulsion.

Table No. 1: Age Distribution of Cases.
(n=60)

Age	Number	Percent
20-30 Years	32	53.3%
31-40 Years	17	28%
41-45 Years	11	18.3%

Table No.2: Complication.
(n = 60)

Complication	Number	%
Pain	29	48%
Endometritis	14	23%
Heavy lochia	12	20.7%
Expulsion	5	8.3%

DISCUSSION

The issue of appropriate contraception for women with Caesarean section is likely to become increasingly important. In the United States in 1981, almost 18 percent deliveries were abdominal¹⁶. In less developed countries, the Caesarean section rate is also increasing. In one hospital of the Beijing, China, the average annual Caesarean delivery rate was 4.3 percent between 1999 and 2006, but increased to 12.9 per cent in 2008¹⁴. Despite, the Intrauterine Contraceptive Device (IUCD) is the second most common modern method of contraception used by women, the health care providers are reluctant to insert IUCD in a scarred uterus (e.g. due to Caesarean section) for fear of perforating it, thus depriving a fair number of women undergoing Caesarean section for using the IUCD regardless of

their good candidature for its use. Therefore the insertion of IUCD into the uterus under vision (at Caesarean section) is being encouraged. Excessive postoperative pain, heavy lochia and expulsion of the IUCD is attributed to insertion of IUCD at Caesarean section.

In our study the post operative pain occurred in 29 (48 percent) of patients. This is considerably greater than that found by Azen SP, Roy S, who reported it as 23 percent. A recent study by Zatuchni GI¹⁷, on fifty patients, found that significant number of patients have postoperative pain and greater analgesia required¹⁴.

In our study 12% women experienced heavy lochia while another study at a Mexican Institute of Social Security hospital in Cardenas, Tabasco, between August 2005 and December 2006, 78 women were inserted with copper T 220 IUDs during cesarean deliveries, only 6 percent of them had heavy lochia in the puerperium.

A study conducted by Kovac SR¹¹, reported the average age as 20.6 years for IUD acceptors while in our study it was found as 33 years.

One of the concerns with immediate postpartum IUD insertions is the early and high incidence of expulsions. The present as well as other studies have shown IUCD insertion at Caesarean section to be effective and safe. The greater risk of expulsion after insertion of IUCD at Caesarean section is a possibility and the present and other studies did not significantly corroborate this possibility. In our study the expulsion rate was 8.3%, while Mackenze and Nickelsen¹⁵ in 2000, reported an expulsion rate of 5.2%¹² and studies from Mexico reported the 7% rate of expulsion.

Insertion of IUCD at Caesarean section also offers an alternative to the common practice of tubal ligation, in cases of multiple repeat Caesarean sections. Women who have had multiple Caesarean sections at short intervals followed by tubal ligations, at a relatively young age may regret it later on, especially in view of the prevalent high perinatal and infant mortality rates^{18,19}. Therefore a reversible, albeit a long term contraceptive method like IUCD in this group of women is a feasible option²⁰.

CONCLUSION

Women undergoing Caesarean section, who are desirous of, and suitable for using this method, should be given the option of insertion of IUCD at the same time.

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