Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/mjafi

Original Article

Awareness about postpartum insertion of intrauterine device among antenatal cases

Brig S.K. Kathpalia ^{a,*}, Lt Col M.S. Mustafa ^b^a Consultant (Obst and Gynae), Base Hospital, Delhi Cantt, India^b Officer Commanding, Station Health Organisation, Allahabad, India

ARTICLE INFO

Article history:

Received 18 February 2015

Accepted 3 April 2015

Available online 9 June 2015

Keywords:

Postpartum

Intrauterine device

Contraception

ABSTRACT

Background: In spite of many available contraceptives numerous unwanted and unplanned pregnancies occur. Though the couples desire contraception but are not able to accept it due to their ignorance and misconceptions. Intrauterine Contraceptive Device (IUCD); an effective contraceptive is usually inserted six weeks after delivery. It can be inserted within 48 h of delivery called postpartum insertion for which government has started the program in many states. The study was undertaken to find out the choices about contraception after delivery and awareness about postpartum insertion.

Methods: The present observational study was conducted in one of the zonal service hospitals. 500 antenatal cases were included in the study. Their choice of contraception after delivery and awareness was determined through a questionnaire. Reasons for refusal of postpartum insertion were recorded. A small sample of staff also was included in the study. **Results:** 500 cases were included in the study, a large number had decided about contraception; mainly breast feeding supplemented by barrier contraceptive. 94 of 500 were willing for insertion of contraceptive device but not immediately after delivery due to apprehension in general and fear of side effects. Staff's awareness about postpartum insertion was poor.

Conclusion: Knowledge and acceptance of postpartum insertion is very low among antenatal women; probably because the concept is new in the community. There is a strong need to increase the knowledge and awareness about this by health education and counseling.

© 2015, Armed Forces Medical Services (AFMS). All rights reserved.

Introduction

India was the first country in the world to start its family planning program in 1952. The aim of the national program was population control so that economic development could keep pace with time. Contraception (both temporary and

permanent) was one of the main prongs of this national program. Contraception is a highly cost effective public health measure and the most effective methods are also cost effective.¹

In the last few decades there has been a great progress in the understanding and armamentarium of contraception; many new ones have been developed. Some of the

* Corresponding author. Tel.: +91 9990683557 (mobile).

E-mail address: kathpaliasukesh@gmail.com (S.K. Kathpalia).<http://dx.doi.org/10.1016/j.mjafi.2015.04.002>

0377-1237/© 2015, Armed Forces Medical Services (AFMS). All rights reserved.

contraceptives are suitable at an individual level but at community level still the ideal contraceptive is elusive, the one which would cater to most of the couples. Couples need contraception throughout their reproductive years; initially it is required for delaying first pregnancy and later on for spacing and finally permanent methods when the family is complete. The choice and decision of contraception should be left to them; popularly called 'Cafeteria Approach'. The couples should have adequate information about all the options available and they reach the informed decision on their own. Lack of adequate knowledge or wrong information and beliefs are common hurdles in acceptance of contraception.^{2,3} Fear of side effects and misconceptions is wide spread and has been the most important explanation for non-use of contraception.⁴

Postpartum period is one of the important and crucial times when women and couples are highly motivated and more receptive to family planning methods. This period is defined as the period of six weeks after delivery when the woman returns to her pre-pregnancy state. If a contraceptive is provided prior to discharge from the hospital then the woman or couple need not return specially for contraception. The couple has been protected before they assume sexual activity.⁵ Delay in practice of contraception by couples during postpartum period can result in many unwanted/unintended or mistimed pregnancies.⁶ Delaying the next pregnancy and spacing are important as this affects the health of mother and child. It is well known that if the woman conceives within less than 24 months of delivery then there are higher chances of complications like abortions, pre term labor, postpartum hemorrhage, low birth weight babies, neonatal morbidity and mortality.⁷ There is not enough time for the mother to recuperate and build up her iron stores resulting in chronic ill health among women. Approximately 27% births in India occur within 24 months of delivery.

Intrauterine contraceptive device (IUCD) is most effective and one of the good options for spacing pregnancies as it is convenient, long acting and rapidly reversible.⁸ It can be removed whenever the individual desires and fertility returns immediately.⁹ IUCD is usually inserted as an interval procedure that is six weeks after delivery or along with induced abortion. It was not commonly inserted immediate postpartum; within 48 h of delivery before discharge of woman from the hospital. The initial clinical experience of intrauterine device inserted in the immediate postpartum has prompted its wide spread use.¹⁰

Postpartum IUCD (PPIUCD) insertion can be done post-placental that is within 10 min of placental expulsion, intra cesarean at the time of cesarean section or within 48 h of delivery. Inserting IUCD minutes after placental delivery is safe, will lead to wider usage of IUCD hence meeting the unmet needs of community. Contraception has been provided before assumption of sexual activity.⁵ It does not interfere with lactation and chances of perforation are almost nil due to thick walled uterus. Common menstrual abnormalities do not occur as many women as such have amenorrhoea or oligomenorrhoea during lactation period. The expulsion rates would be minimal if it was inserted by a trained provider and placed at the fundus.¹¹

It is not only advantageous to the women and couples; even the service providers benefit from PPIUCD insertion as pregnancy is definitely ruled out, time is saved as it is performed on the same delivery table. Additional evaluation and separate clinical procedure is not required. A special instrument may be required for its insertion. Under the new program being implemented by the Government of India in some states, pregnant women are counseled for the use of IUCDs during antenatal period itself and the IUCD is inserted soon after the woman delivers the baby, following proper consent.¹² It should not be inserted after 48 h of delivery up to six weeks as the chances of infection may increase. So far the acceptance of PPIUCD is low; probably due to lack of awareness among the clients and staff.¹³

Acceptance and continuation of IUCD can be increased by education and counseling. First step of any contraceptive implementation at the community level is to make the public aware and informed about the contraceptive. In populations with family planning policies designed to increase contraceptive use; measuring the level contraceptive awareness also provides useful measure of success of information, education and communication activities and may help to identify program areas that need to be strengthened.

Despite making contraception widely available, there is poor acceptance of contraceptive methods either due to ignorance or fear of complications using them. Inadequate knowledge about contraceptive methods and incomplete or erroneous information about their use or where to procure them are the main reasons for not accepting family planning.¹⁴ This study was conducted to find out the knowledge and awareness of PPIUCD insertion which is a new concept. Study would also find out the future plans of couples during antenatal period regarding contraception for spacing or limiting family after delivery.

Material and methods

The present observational study was conducted in one of the zonal service hospitals. All antenatal cases who reported for registration from Aug 2012 onwards were given the option of being included in the study. Those not willing were not enrolled for the study group; unwilling cases were not required to give the reason for their reluctance. Informed consent was obtained from all respondents prior to participating in the study. Confidentiality was maintained in data collection and compilation. The study was terminated on Jan 2014 when the requisite sample size of 500 cases in study group was achieved. Both willing and unwilling cases went through routine and standard antenatal care. Age, parity and other antenatal demographic parameters were noted. Those who were included in the study were given the questionnaire on second or third visit. This was not done purposely on the first visit as antenatal care was the primary aim of their visit.

Questionnaire included two parts; the first was to know the contraceptive method/methods which the couple had planned to use after delivery. The second part was to find out if they had heard about postpartum insertion of IUCD. If it was familiar and known to them; then what was the source of that information. All those who had opted for IUCD as a

contraceptive were asked if they were willing to get the IUCD inserted at the time of delivery. All the cases were given the option of postpartum insertion of IUCD when they reported in early labor. The reasons for the reluctance to get PPIUCD insertion were enquired into.

A small random sample of staff both medical and paramedical was also included in the study. They too were given a questionnaire to find out the awareness of this new concept of PPIUCD. This was done as a pilot study to find out about the awareness of PPIUCD.

Results

All cases attending antenatal OPD were given the option of joining the study group. 43 cases did not want to participate in the study. Total of 500 cases participated in the study. Their age (Table 1) varied from 18 to 41 yrs, a large no of cases 284/500 (56.8%) belonged to the 20–30 yrs. 30.6% of cases belonged to less than 20 years, there were only two cases whose age was more than 40 years. Of the 500 cases 263 (52.6%) cases were nulliparous, 218 (43.6%) were primiparous and 19 (3.8%) were multiparous. This observation shows that the incidence of high parity is low (Table 2).

All the cases were asked about their intended plan of contraception after delivery. The details are recorded in Table 3; stratified into two groups. Group 1 (total 263 cases) was of nulliparous and Group 2 (total 237 cases) consisted of others that is the ones with one child or more. There was a large no of women in both groups who were still undecided about the contraception they would practice after delivery (132 of 500). Breast feeding was the first option in both the groups. Many in both the groups had indicated more than one option; breast feeding and barrier male contraceptive combined, 94 out of 500 cases (18.8%) had decided on IUCD after delivery, they all knew that IUCD needs to be inserted later, after delivery or when the menstruation begins. 23 women in group 2 had used IUCD in the past. Volunteers for IUCD were offered the option of PPIUCD insertion; only three of them agreed. Two had to undergo Cesarean Section (CS)

Table 1 – Age distribution of cases.

Age	Frequency (%)
Less than 20	153 (30.6)
20 to 30	284 (56.8)
30 to 40	061 (12.2)
More than 40	002 (00.4)
Total	500 (100)

Table 2 – Distribution of cases as per parity.

Parity	Frequency (%)
1	263 (52.6)
2	218 (43.6)
3	018 (03.6)
4	001 (00.2)
Total	500 (100)

Table 3 – Intended contraception in future.

Intended contraception	Group – 1 nulliparous (263 cases)	Group – 2 primiparous and multiparous (237 cases)	Total (500)
Not yet decided	91	41	132
Breast feeding	69	84	153
IUCD	51	43	94
Barrier Male	38	44	82
Oral pills	22	13	35
Injectable	03	02	05
Female sterilization	00	24	24
Male sterilization	00	02	02
Total	274	253	527 ^a

^a Total more than 500 due to multiple choices.

and IUCD was put intra cesarean; only one case was willing for IUCD insertion at the time of labor; this was done post placentally. Rest 91 cases who were willing for IUCD insertion after delivery refused PPIUCD. The reasons for not being willing are enumerated in Table 4. Female sterilization was an option for 24 out of 500 (4.8%) cases, and only two were for male sterilization.

Almost all the volunteers (except 3) for IUCD insertion refused PPIUCD; they had multiple reasons for refusal. Two most common reasons for refusal were not being ready (47/91) and general apprehension (31/91) about the procedure immediately after delivery. Relatives including husband refusing for the procedure was another reason. 14 cases felt that this was a new experiment hence they did not want to be a part of it. All 500 cases were enquired if they had heard about the PPIUCD program, only six of them mentioned they has some idea about this but not very clear. These six cases were not able to convey the source of this information. 467 cases had delivered in the same hospital; none of them was willing for PPIUCD when asked about their willingness during early labor.

As a pilot study 20 medical and paramedical staff members of the hospital were asked about timing of insertion of IUCD; only 5 nursing staff members had heard about this but none of them had actually seen. The rest of 15 individuals had never heard about PPIUCD.

Table 4 – Reasons for refusal of PPIUCD.

Criteria	Frequency (n)
IUCD volunteers (Interval)	94
Willing for PPIUCD	3
Unwilling for PPIUCD	91
Reasons for refusal of PPIUCD (n-91)	
Apprehension in general	31
Not agreed by husband	11
Not agreed by relatives	04
Side effects in general	15
Apprehension about infection	09
Not willing for experiment	14
Not ready as yet	47
Total	131

Discussion

All women need contraception sometime or other in their reproductive years. Postpartum period is one such important phase of their lives. IUCD is a very effective method of contraception; at times comparable to sterilization, it is one of the good and acceptable method. The study was conducted to find out the awareness about the timing of IUCD insertion. Timing of insertion is usually six weeks after delivery. Recent studies have shown that insertion of IUCD immediately after delivery is a safe and effective procedure. Awareness about this timing is very low and needs to be enhanced by health education and counseling during antenatal period. The reasons given for being unwilling were frivolous and need to be allayed by health education and counseling.

Many women and couples remained undecided about contraception after delivery and this would increase the chances of conception resulting in unplanned and unwanted pregnancies.¹⁵

Breast feeding was a common option for many women, there is need to strengthen this method of contraception as it is well known that lactational amenorrhoea method (LAM) is a useful and effective method if used properly,^{16,17} but only up to six months.

Conclusion

Knowledge and acceptance of PPIUCD insertion is very low among women attending antenatal OPD; probably because the concept is new in the community. There is a strong need to increase the knowledge and awareness about this by health education and counseling. Knowledge among medical and paramedical staff also is very low. The staff providing family planning services too; needs to be made aware of this new, useful and practical method of delaying pregnancy thereby improving the health of mother and baby/babies.

Postpartum Family Planning services need to be strengthened and providers updated on recent developments in contraceptive services. Provision of IUCD in the immediate postpartum period offers effective and safe method of spacing and limiting pregnancy. Promotion of health education highlighting the advantages of contraceptive methods and eliminating apprehension about the use of these methods is the need of the hour.

Antenatal services should be enhanced as currently it does not create a significant impact on acceptance of contraceptive. Counseling during antenatal period gives them time to decide finally.

Conflicts of interest

All authors have none to declare.

REFERENCES

1. Cleland K, Peipert JF, Westhoff C, Spear S, Trussel J. Family planning as cost-saving preventive health service. *N Engl J Med*. 2011;364:37.
2. Orji EO, Onwudiegwu U. Prevalence and determinants of contraceptive practice in a defined Nigerian population. *J Obstet Gynaecol*. 2002;22:540–543.
3. Ashoke S, John S, Jayanti MT. The KAP-gap in Nepal: reasons for non-use of contraception among couples with an unmet need for family planning. *Asia Pac Popul J*. 2000;6:25–38.
4. Srivastava R, Srivastava DK, Jina R, et al. Contraceptive knowledge, attitude and practice (KAP Survey). *J Obstet Gynecol*. 2005;55:546–550.
5. Byrd JE, Hyde JS, DeLamater JD, Plant EA. Sexuality during pregnancy and the year postpartum. *J Fam Pract*. 1998;47:305–308.
6. Okonofua F. Abortion and maternal mortality in developing world. *J Obstet Gynecol Can*. 2006;28:974–979.
7. Majhi AK. Importance of PPIUCD in the perspective of present Indian population scenario. *Indian J Perinatol Reproductive Biol*. 2012;2:5–7.
8. Nelson A. Intrauterine contraceptive. *J Obstet Gynecol*. 2008;6:219–224.
9. Kaneshiro B, Abey T. Long-term safety, efficacy and patient acceptability of the intrauterine copper T-380A contraceptive device. *Int J Women's Health*. 2010;2:211–220.
10. Niazi Asfandiyar, Bhutani J, Bhutani S, et al. The revival of postpartum intrauterine contraceptive devices. *Archives Gynaecol Obstetrics*. 2014;290:9.
11. Trivedi A, Kasar PK, Tiwari R, et al. Immediate postpartum IUD: analysis of factors making it contraceptive of choice. *Int J Reproduction, Contracept Obstetrics Gynecol*. 2014;3: 986–989.
12. *Postpartum IUCD Insertion Manual*. Nirman Bhavan, New Delhi 110001: Family Planning Division. Ministry of Health and Family welfare. Government of India; Nov 2010.
13. Priya Sanskriti. Post partum intrauterine device insertion: the unfinished agenda. *New Indian J Surg*. 2011;2:245–247.
14. Bhasin SK, Pant M, Mehta M, Kumar S. Prevalence of usage of different contraceptive methods in East Delhi-a cross sectional study. *Indian J Community Med*. 2005;30:53–55.
15. Grime DA, Benson J, Singh S, et al. Unsafe abortion: the preventable pandemic. *Lancet*. 1908–19;368.
16. Kennedy KI. Efficacy and effectiveness of LAM. *Adv Exp Med Biol*. 2002;503:207–210.
17. Van der Wijden, Kleijn J, VandenBerk T. Lactational amenorrhoea for family planning. *Cochrane Database Syst Rev*. 2003;CD001329.