

Postpartum IUCD: Rediscovering a Languishing Innovation

Geetha Dharmesh Balsarkar¹ · Arun Nayak²

Received: 2 July 2015 / Accepted: 15 July 2015 / Published online: 22 July 2015
© Federation of Obstetric & Gynecological Societies of India 2015

About the Author



Dr. Geetha Dharmesh Balsarkar is a Professor at Seth G.S. Medical College and Nowrosjee Wadia Maternity Hospital. She has over 18 years of teaching experience and is actively working on FIGO FOGSI project of PPIUCD in India. She has undergone training for the PPIUCD program and is also the faculty member of many training programmes as well. She is a recipient of the prestigious Hargobind Foundation for the study of Fetal Medicine in 2008 at St. George's Hospital, London. She is the Chairperson of Young Talent Committee of FOGSI. She is also the Associate Editor of this journal.

Abstract The National Family Planning Programme of India, since its inception in 1951, has been able to successfully achieve significant reductions in maternal mortality and fertility. Over the past decade, the need for contraception has changed dramatically in India. Couples no longer desire sterilization, but prefer modern reversible

long-term methods of contraception. The ideal time to discuss contraception is in the antenatal period when there is a good rapport between the doctor and the patient. The window period when the patient is admitted in the hospital during delivery can be used effectively to offer postpartum contraception. It has been found that the highest chance of unwanted pregnancy is in the first year after delivery, when women do not report to the doctor if this window period is missed. Postpartum intrauterine contraceptive devices are ideal for a country like India and it can be used to cover the unmet need of contraception if inserted immediately after delivery. There are two types of insertion: post placental, within 10 min of delivery of placenta and postpartum, within 48 h of delivery. Although there is a greater chance of expulsion in the postpartum insertions, it can be significantly reduced with proper training and user experience. Postpartum IUCD should be routinely offered to all patients delivering in institutions to provide complete care to a parturient and to achieve safe motherhood.

Dr. Geetha Balsarkar is a Professor at Seth G.S. Medical College and Nowrosjee Wadia Maternity Hospital. Dr. Arun Nayak is a Professor at L.T.M. Medical College and Hospital, Sion, Mumbai.

✉ Geetha Dharmesh Balsarkar
gdbalsarkar@yahoo.com

¹ Nowrosjee Wadia Maternity Hospital, Seth G.S. Medical College, Parel, Mumbai, India

² L.T.M. Medical College and Hospital, Sion, Mumbai, India

Keywords Postpartum · Post placental · Fundal insertion · IUCD · CuT 380 A · Training · Expulsion

Among all the countries in the developing world, India has the unique distinction of having the first National Family Planning programme since 1951. Since then, maternal mortality has decreased by two-thirds, fertility has declined by two-fifths, and life expectancy at birth has improved significantly. The successive 5-year plans have stressed the importance of the cafeteria approach, wherein the clients are offered a variety of contraceptive methods, from which they make their choice. For the past several decades, female sterilization has been the mainstay of family planning to limit the number of children.

The main concern of the National Family planning policy of February 2000 was to address the unmet needs of contraception by 2010. Enabling families to achieve their reproductive goals and reduction in infant mortality were the other concerns. Its final objective is to achieve population stabilization by 2045. This can only be achieved with complete cooperation of all the stake holders such as the central and the state governments, the non-governmental organizations (NGO), and the private sectors [1].

There has been a paradigm shift in the demographic and socioeconomic conditions of the country. There is a continuous effort to bring women to deliver in institutions. Couples no longer desire large families, women are getting educated, and the age of women at first childbirth has been pushed to the late twenties. Couples are looking at reversible long-acting methods of contraception to space and to limit families. Female sterilization which has been the mainstay of the previous decade is no longer in favor. Remarriages after divorce and second marriages have changed the social scenario in favor of IUCD as an effective long-term method for birth spacing.

Analysis of NHFS 2 data shows that about one-fifth of the births in India is unplanned. Of these, 12 % were mistimed and 9 % were unwanted births. The main reason for seeking abortions is for spacing births. Although unmet need for contraception existed for all age groups, it was higher in younger women than in older women [1].

One-third of the maternal deaths and 10 % of child mortality can be avoided when couples space pregnancies more than 2 years apart. It is in the first year postpartum that Indian women are most susceptible to unwanted pregnancies. Postpartum family planning is the prevention of unintended and closely spaced pregnancies through the first 12 months following childbirth [2].

Among other methods, postpartum IUCD is an effective way to tackle this unmet need of contraception. Although any

intrauterine device can be used for postpartum contraception, Copper T 380 A which is widely available in institutions and private sectors is one of the most cost-effective options available. It comes in regular and safe load varieties. Copper T 380A is highly effective for 12 years though approved for use only for 10 years. It is a non-hormonal IUCD that can be safely used by all women even during breast feeding. It requires only one-time motivation and few follow-ups. It has a monofilament string that reduces the chances of ascending infection. The contraceptive effect is immediate upon insertion, and there is immediate return to fertility once removed. Although effective for 12 years, CuT 380 A can also be used for shorter intervals. According to the World Health Organization Medical Eligibility Criteria, an IUCD can be inserted in the 48 h postpartum, or after 4 weeks following a birth if that window of 48 h is missed. According to a 2010 Cochrane review, PPIUCD is a safe and effective contraceptive method. Presently in India only 2 % of the current contraceptive users are using interval Copper T for contraception. Because of increased accessibility to medical care during childbirths, PPIUCD can be offered to all women [3].

Ideally, postpartum insertion should take place within 10 min of placental delivery (immediate postplacental) with normal delivery or Cesarean section. Postpartum insertion can be done before hospital discharge (up to 48 h after delivery), but it should not be done between 48 h and about 6 weeks postpartum because of an increased risk of expulsion and perforation. Special training is required for immediate postplacental insertions and for insertion within the first 2 days.

Women in labor are not in the best situation to understand and consider their family planning options. Immediate postplacental insertion requires adequate antenatal counseling. Ideally, with cafeteria approach, all the choices of methods should be discussed during routine antenatal visits, from which clients can choose the most appropriate method at that point. Even after hospitalization, woman in the early stages of labor could receive counseling and decide to have a postplacental insertion. Also, a woman could decide after delivery to have an IUD inserted before leaving the hospital. Adequate counseling and informed consent are the two keys for successful implementation. Counseling should be done either before or once the emotional and physical stresses of labor have ended. Since postplacental insertion of the IUCD is the most convenient time and has the lowest rate of complications, service providers should make efforts to make this possible. This means adequate counseling for PPIUCD during antenatal visits should be offered to all women [4].

There are no randomized controlled trials that directly compare immediate postpartum insertion with either delayed postpartum or interval insertion. Most studies showed no important differences between insertions done by hand or by instruments. Kelly's forceps is highly useful for successful

fundal insertion. Plain ring forceps can also be used in its absence. The expulsion rates are highly variable. Copper T (CuT380A) is better than Lippes Loops and Progestasert for PPIUCD [3]. Adequate training of the provider for fundal placement has been associated with reduced expulsion rates. In places where ultrasonography is available, it can be used to train the providers for a good fundal placement. Hand washing is the single most important means of preventing the spread of infection and this applies to PPIUCD too. Aseptic technique is critical to prevent infection during postpartum insertion of IUCDs and its further complications.

Previously, concerns about the PPIUCD focused on high expulsion rates. Studies published in the nineties and early 2000 reported rates of about 9–13 %. However, lower expulsion rates have been reported more recently with improvements in insertion technique. Risk of expulsion is lower for insertions done within 10 min of delivery than for those done between 10 min and 48 h [5].

There has been no increase in IUD expulsions or perforations associated with active management of third stage of labor. The use of oxytocic agents and fundal massage does not increase the risk of IUD expulsion or perforation, even in the cases when IUD is inserted 2–40 h after expulsion of the placenta. Postplacental insertion has lower risk of expulsion and perforation than postpartum insertion.

Any patient who fits in the medical eligibility criteria for IUCD can be safely offered PPIUCD too [6].

PPIUCDs are still emerging as a relatively new contraception choice in India, just like rediscovering the languishing innovation. This low use in spite of good knowledge about IUCDs is attributed to the lack of trained providers, poor quality of IUCD services, provider bias against IUCDs, and lack of awareness and misconceptions about the method among both clients and health care providers. While follow-up data on complications with PPIUCD insertions were available from international sources, given the scale at which PPIUCD services are being introduced in India, it was important to generate our own data on the post-insertion outcomes after the introduction of PPIUCD program [2].

There can be some problems encountered after immediate PPIUCD insertion. Changes in menstrual bleeding patterns can be very distressing to the patient. If the symptoms are mild and consistent with postpartum uterine involution, reassurance goes a long way. If the bleeding is persistently heavy and prolonged or associated with clinical or laboratory signs consistent with severe anemia, iron replacement therapy can be offered and removal is considered with the patient's consent. Mild intermittent cramping may occur in the first few weeks after IUCD insertion but is generally masked by the usual cramping associated with uterine involution postpartum (afterpains). Possible signs and symptoms of IUCD insertion like increased cramping or pain may or may not be associated with menstruation. The risk of upper genital infection among

IUCD users is less than 1%. The risk is highest within the first 20 days after IUCD insertion. It is related to either insertion technique (due to lack of proper infection prevention practices) or the pre-existing infection rather than to the IUCD itself.

If the insertion is correct, strings will not be seen at the cervix at postpartum. Even in cesarean section, there is no need to push the strings into the cervix. The strings follow the lochia and can be seen at the cervix by about 6 weeks. In about 50 % of the patients, strings will not be seen at the cervix. Hence, one follow-up at 6 weeks with the provider is mandatory. If at 6 weeks the strings are long, or the partner can feel strings, it can be trimmed. If the strings cannot be seen, ultrasonography can be done to reassure the patient about the placement of IUCD [7].

There are some factors which will help in the acceptance of the programme. Orientation of all staff (including paramedical) about the benefits and strengths of these services, ensuring high-quality training and post-training follow-up and emphasizing quality of services including infection prevention practices, and training management and monitoring will go a long way in preventing complications. Strengthened positive counseling at all facility levels by ensuring that all providers, including nurses, are trained in counseling skills is essential. Required counseling materials such as job aids and posters should be made available to all intervention sites. The audio-visual medium can be used to counsel patients. Improved follow-up by establishing a follow-up mechanism and regular monitoring of all clients will boost the programme.

Conflict of interest None.

References

1. Pachouri S. Expanding contraceptive choice in India: issues and evidence. *J Family Welfare* 2004;50(special issue):13–25.
2. Kumar S, Sethi R, Balasubramaniam S, et al. Women's experience with postpartum intrauterine device use in India. *Reprod Health*. 2014;11:32. doi:10.1186/1742-4755-11-32.
3. Grimes DA, Lopez LM, Schulz KF, et al. Immediate post-partum insertion of intrauterine devices. *Cochrane Database of Syst Rev* 2010;(5):Art. No.: CD003036. doi:10.1002/14651858.CD003036.pub2.
4. Nelson A. *Gynaecology and obstetrics*. In: *Intrauterine contraceptives*. Vol. 6. Philadelphia: Lippincott Williams and Wilkins; 2004.
5. *Post-partum IUCD Reference Manual*. New Delhi: Family Planning Division, Ministry of Health and Family Welfare, Government of India; 2010.
6. World Health Organization. *Medical eligibility criteria for contraceptive use*. 4th ed. Geneva: World Health Organization; 2010.
7. Immediate postpartum insertion of an IUD is safe and effective. *Global Health Technical Briefs*. 2007. USA: USAID (United States Agency for International Development and Family Health International); 2007. Lopez, Grimes, Szpir (Family Health International/CRTU Programme).