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REVIEW ARTICLE

Contraception During Lactation

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ABSTRACT

Contraception during lactation represents a critical aspect of postpartum care, balancing the need for effective birth control with the preservation of breastfeeding. The postpartum period is a unique physiological state wherein hormonal changes influence both fertility and contraceptive choices. Lactational Amenorrhea Method (LAM), a natural form of contraception based on exclusive breastfeeding and the absence of menstruation, offers up to 98% effectiveness in the first six months postpartum under specific conditions. However, as breastfeeding patterns change or fertility resumes, additional contraceptive options must be considered. Progestin-only methods such as pills, injectables, and implants are preferred due to their minimal impact on milk production, while non-hormonal methods like intrauterine devices (IUDs) and barrier methods also provide safe alternatives. Individualized counseling is essential to align contraceptive choices with breastfeeding goals, cultural preferences, and medical considerations. Understanding and promoting appropriate contraception during lactation is vital to supporting maternal health, child spacing, and overall reproductive autonomy.

KEYWORDS

• Contraception • Lactation • Progestin • Family Planning • Amenorrhea

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INTRODUCTION

Millions of women worldwide, particularly in developing countries, have an unmet need for family planning, leading to unintended pregnancies and unsafe abortions. Each year, more than 100 million women worldwide make decisions about the use of a method of contraception after childbirth.[1] In India alone, around 31 million couples lack awareness of contraception, contributing to 6.7 million abortions annually. Globally, an estimated 45 million induced abortions occur each year, emphasizing the urgent need for accessible and effective contraception.[2]

An important but frequently neglected issue is contraception during the lactation period, a time of natural, temporary infertility that occurs with exclusive breastfeeding. Although lactational amenorrhea can prevent pregnancy for up to six months after birth, fertility may return unexpectedly. Therefore, additional contraceptive methods are crucial for women aiming to avoid pregnancy. Unfortunately, many women are unaware of this need, which raises the risk of unplanned pregnancies shortly after delivery.[1]

Meeting unmet contraceptive needs involves increasing awareness, guaranteeing access to safe and reliable methods, and offering medical assistance when contraception fails. Enabling women to make informed reproductive choices, while also engaging men in family planning, promotes improved healthcare, gender equality, and sustainable development.

DISCUSSION

Breastfeeding and contraception share a complex relationship. Although lactation offers some natural contraceptive effect, it isn't entirely reliable on its own though it can enhance the effectiveness of other methods. Combining two contraceptive methods significantly reduces the chance of unintended pregnancy, as long as they are used consistently. If one of the methods is a condom or another vaginal barrier, it also provides protection against sexually transmitted infections.[2]

The contraceptive effect of breastfeeding is well established. Nursing raises serum prolactin levels, and the resulting hyperprolactinemia inhibits the entire hypothalamus-pituitary-ovarian axis. This leads to anovulation, primarily due to elevated prolactin interfering with the release of gonadotropin-releasing hormone (GnRH), which in turn suppresses the pulsatile secretion of luteinizing hormone. It remains unclear how much the act of suckling itself directly affects GnRH activity at the hypothalamic level. However, the risk of ovulation can be significantly lowered through consistent nursing, with the frequency of feeding having a greater impact on preventing ovulation than the duration of each session. More frequent and prolonged daily nursing raises prolactin levels and reduces the likelihood of ovulation. Exclusive breastfeeding further enhances contraceptive effectiveness. In a 1972 study by Berman, 14% of fully breast-feeding women ovulated compared with 29% of partly breast-feeding women within 16 weeks' postpartum. Full breast feeding assures a 98% rate of protection from pregnancy in the first 6 months' postpartum.To maintain high prolactin levels, it is important to include night time breastfeeding. Amenorrhea during lactation is a key factor for effective contraceptive protection. Early menstrual cycles during breastfeeding are often anovulatory and show signs of corpus luteum insufficiency. For breastfeeding to provide reliable contraception, certain conditions must be met: the mother should nurse at least six times daily, spend a minimum of 60 minutes breastfeeding each day, limit supplemental feedings to once daily, and include nighttime nursing. This level of contraceptive protection is generally effective only until about nine weeks after childbirth. For those needing stronger postpartum contraception, the use of the minipill is advised. Nonetheless, breastfeeding alone should be seen as a moderate form of contraception, and an additional chemical or barrier method is recommended starting three months after delivery.[3]

LACTATIONAL AMENORRHEA METHOD

The Lactational Amenorrhea Method (LAM) is an effective postpartum introductory family planning method based on breastfeeding's effect on a woman's fertility. Benefits of LAM are that it simultaneously promotes child spacing and breastfeeding, with its optimal nutrition and disease preventive benefits for the infant.

Efficacy of LAM: LAM's efficacy depends on following parameters[4,5]

- Woman's menstrual period
- Her frequency of breastfeeding
- She gives her baby no other food
- Her baby < 6 months old

The mechanism of action of lactational amenorrhea (LAM) is linked to the hypothalamic-pituitary-ovarian axis and its reaction to the suckling stimulus. When the baby sucks, it sends neural signals to the hypothalamus, which regulates the secretion of gonadotropin-releasing hormone (GnRH). Early postpartum breastfeeding also affects the pituitary's response to GnRH. Since GnRH regulates the release of follicle-stimulating hormone and luteinizing hormone, which are responsible for stimulating follicle development and ovulation, frequent breastfeeding inhibits proper ovulation and follicle maturation. This process prevents the woman from producing eggs and becoming fertile during the early months after childbirth.

OTHER METHODS

Sterilization and barrier contraceptive methods do not negatively impact the health of breastfeeding women. While the spermicidal agent nonoxinol-9 can be absorbed through the vaginal wall, the use of spermicidal creams or suppositories has not been linked to any harmful effects.[6]

When considering hormonal contraceptives and intrauterine devices (IUDs), it's important to weigh their potential benefits and risks against the natural physiological and metabolic changes that occur during the postpartum and breastfeeding periods. The primary concerns with IUD use arise from the postpartum condition of the uterus and any existing anemia. However, breastfeeding does not seem to increase these risks, as the likelihood of expulsion or perforation is typically elevated during the postpartum phase regardless of lactation.

Progestogen-only contraceptives, whether taken orally or by injection, seem to affect breastfeeding women in much the same way as they do those who are not breastfeeding. Women who are amenorrheic due to lactation often experience less bleeding with progestogen-only methods compared to those who menstruate. However, in a few cases, significant menorrhagia especially with depot medroxyprogesterone acetate (DMPA) may occur and require medical treatment. While estrogens can effectively manage this condition, they may interfere with breastfeeding.

Combined oral contraceptives (COCs) have comparable effects in both breastfeeding and non-breastfeeding women. However, in lactating women with existing cardiovascular conditions like chronic rheumatic heart disease, there is a slightly elevated risk of developing congestive heart failure, though this risk is no greater than that posed by pregnancy in similar cases. Additionally, using oral contraceptives while breastfeeding has been associated with biochemical signs of riboflavin and pyridoxine deficiencies in some instances, although actual symptoms are uncommon. Women who were already deficient did not show worsening of their condition. Nevertheless, a pyridoxine deficiency in a breastfeeding woman can affect the quality of her breast milk and potentially impact her infant's nutrition.

Non-hormonal contraceptives are recommended during breastfeeding because they lower the chance of a new pregnancy and may support extended lactation. Intrauterine devices (IUDs) can be inserted immediately after childbirth, but only if there is access to follow-up care to confirm the device stays correctly positioned and to enable reinsertion if needed.

Combined hormonal contraceptives should be discouraged during the early months of lactation, as they can reduce the quantity of breast milk produced. The Physicians' Desk Reference advises that a nursing mother should not use oral contraceptives but should use other forms of contraception until she has completely weaned her infant.[7] If a woman prefers to use hormonal contraception during this period, progestogen-only contraceptives, whether oral or injectable, should be offered as a safer alternative.[8]

Effect of oral contraceptives on breastfeeding mother

High-dose estrogens, alone or in combination with an androgen, were formerly used to suppress lactation in women who did not wish to breastfeed.[9] Combination oral contraceptives containing mestranol 100 mcg daily has also been used as a method for decreasing postpartum breast engorgement in women who did not breastfeed.[10]

Effect of oral contraceptives on breastfeeding infant

Bilateral breast engorgement is often seen during maternal consumption of oral contraceptive containing norethynodrel mestranol which is reversible.[11]

Other effects seen are vomiting, diarrhea and deterioration in nutritional status. Laboratory evaluation found folic acid deficiency and macrocytic anemia which responded well to folic acid, attributed the folic acid deficiency to maternal contraceptive use.[12]

CONCLUSION

Contraception during breastfeeding is a critical component of postpartum care, enabling women to space pregnancies safely while supporting optimal breastfeeding practices. Individualized counseling is essential to help women choose the most appropriate method based on their health, breastfeeding goals, and family planning needs. Promoting awareness and access to safe contraceptive choices during breastfeeding can significantly enhance maternal and child health outcomes.

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