



PREGNANCY DURING LACTATIONAL AMENORRHOEA AMONG THE WOMEN ATTENDING BANKURA SAMMILANI MEDICAL COLLEGE, WEST BENGAL

Gynaecology

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ABSTRACT

Background: Lactational amenorrhoea, an established natural method of contraception, requires proper knowledge and implementations for getting desired effect.

Aim: to find out the magnitude of unintended pregnancy during lactational amenorrhoea.

Material and methods: A cross-sectional descriptive study was conducted in department of Obstetrics & Gynaecology and Radiodiagnosis, Bankura Sammilani Medical College & Hospital from March to May'2018 involving a pseudocohort of 2160 lactating women with complaints of lower abdominal discomfort, prolong ammenorrhoea. Data were collected via interview using predesigned questionnaire.

Result: Overall, 1.39% of the attendees were diagnosed to sustain unintended pregnancy during lactational ammenorrhoea with 1.24%, 1.29% and 30.77% among the women exclusively breastfed their babies up to six months, 7 months and 8 months respectively. More than half (56.67%) of the pregnancy was found to occur beyond one year post-partum.

Conclusion: LAM requires an effective counseling to be used as a cost-effective transitional contraceptive.

KEYWORDS

lactational amenorrhea method, exclusive breast feeding, counseling

INTRODUCTION:

With approximately 25 million annual births at present India contributes one fifth of total world population growth - more than any other country.¹ Studies have shown that pregnancies taking place within 24 months of previous birth have extra risk of adverse pregnancy outcomes.¹ Nearly one third of maternal death and 10% of child mortality may be reduced by spacing birth more than two years apart.²

Contraceptive prevalence rate (CPR) among the married or in-union women of reproductive age has increased globally from 55% in 1990 to 63% in 2011.³ In the lowest income countries, 36% of married or in-union women are using contraceptive methods compared to 66% among those living in high-income countries.⁴ Method-specific CPR has a wide variation across regions since 1990, with female sterilization common in Asia, Latin America, and the Caribbean and North America, and IUDs continuing to be important in Asia and Europe. Predominance of female sterilization [estimated to be 65% in India⁵] in countries where childbearing begins at a young age reflects a need for effective reversible methods for achieving women's preference to delay the start of childbearing and to space birth.⁵

As per National Family Health Survey (NFHS)-4 (2015-2016) total unmet need of contraception and unmet need for birth spacing are 12.9% and 5.7% respectively.⁶ Government of India (GOI) is trying hard by making family planning accessible to all in order to achieve millennium developmental goals 4 and 5.⁷ In India, 65% of women in their first year postpartum have an unmet need for family planning.⁸ Only 26% of women use some family planning methods during the first year of postpartum.⁹

The lactational amenorrhoea method (LAM) can be relied on for excellent contraceptive protection in the first 6 months of breastfeeding, irrespective of when supplements are introduced into the baby's diet; for women who continue to breastfeed the method can also give good protection for up to 12 months post partum.¹⁰

LAM is part of the World Health Organization's list of accepted and effective methods of family planning. Studies showed LAM to be 98% effective, as effective as the pill and other modern methods, when used according to guidelines.^{11,12}

For LAM to work, it has been suggested that that: (1) The baby must be under six months of age, (2) The mother must not have had a period and (3) The baby must be provided exclusive breastfeeding (EBF) i.e. no added supplementation should be done, even during night.¹³ When all these criteria are fulfilled LAM has been found to be effective in preventing pregnancy in the range of 98 to 99.5%.¹⁴ In women who do not experience menstrual bleeding and continue to breastfeed exclusively, lactational amenorrhoea is 94% effective one year postpartum.¹³

MATERIAL AND METHODS:

A descriptive cross-sectional study was carried out from March, 2018 to May, 2018 involving the women on lactational amenorrhea who attended the department of Obstetrics and Gynaecology, Bankura Sammilani Medical College and Hospital (BSMCH), Bankura, West Bengal having complaints of lower abdominal discomfort, spotting, experiencing symptoms suggestive of pregnancy and or prolong ammenorrhoea. A pseudocohort of total 2160 of such women of different age, parity and various stages of lactation/amenorrhea were included in the study and subjects with confirmed pregnancy and undiagnosed prolong ammenorrhoea were sent for ultrasonography (USG) imaging in the department of Radiodiagnosis, BSMCH for scheduled Feto-placental profile or for pelvic organ USG for prolong ammenorrhoea. Data pertaining to educational qualification, number of previous pregnancy and child birth, modes of breastfeeding, duration of ammenorrhoea, signs of pregnancy, knowledge about lactational ammenorrhoea and use of contraceptives were gathered via interview and scrutinizing the medical records using a predesigned and pretested questionnaire.

Data were analysed estimating proportion and displaying with charts and table. Chi-square test was used for drawing statistical inference

about the relationship between independent and outcome variables. P value of <0.05 (two tails) was considered as statistically significant at 95% confidence interval (CI) and 5% precision.

The study was undertaken after obtaining the approval of Institutional Ethics Committee, BSMC, Bankura as well as the informed consent of all the participants.

RESULTS:

Table-1: Distribution of pregnancy as per post-partum period of occurrence (n=30)

Post-partum period (mo)	Number of pregnancy	Percentage	χ^2 of Goodness of fit, p at df 2
Up to 6	04	13.33	8.6, 0.014
6-12	09	30.00	
12-18	17	56.67	
Total	30	100.0	-

It was evident that the rate of occurrence of pregnancy during lactation was least within first six months and most beyond 12 months after the child birth. The difference between the lowest and highest rates was found to be statistically significant. [Table-1]

Table-2: Distribution of pregnancy as per post-partum period of occurrence and duration of EBF (N=2160)

Duration of EBF (mo)	Post-partum period (mo)			Total No. (%)	χ^2 , P at df 2
	Up to 6 No. (%)	6-12 No. (%)	12-18 No. (%)		
Up to 6 (n1=1527)	3(15.79)	7(36.84)	9(47.37)	19 (100.0)	82.47, 0.000
Up to 7 (n2=620)	1(14.29)	2(28.57)	4(57.14)	7(100.0)	
Up to 8 (n3=13)	-	-	4(100.0)	4(100.0)	
Total (N=2160)	4(13.33)	9(30.00)	17(56.67)	30(100.0)	-

Analysis revealed that rate of occurrence of mistimed/ undesirable pregnancy was estimated to be 1.24% among the women exclusively breastfed their baby up to six months after the delivery, 1.29% amongst those who continued EBF up to 7 months after delivery and it was found to be 30.77% among those who were reportedly practiced EBF up to 8 months after the delivery with an overall pregnancy rate of 1.39%.

Table-3: Distribution of pregnancy as per post-partum period of occurrence and types of contraceptives used. (N=2160)

Post-partum Period (mo)	Contraceptive used				Total No. (%)
	IUCD	CC	OCP	None	
≤6	-	2(50.0)	1(25.0)	1(25.0)	4 (100.0)
6-12	3 (33.33)	3(33.33)	2(22.22)	1(11.11)	9 (100.0)
12-18	3 (17.65)	7 (41.18)	4 (23.53)	3(17.65)	17(100.0)
Total	6 (20.0)	12 (40.0)	7 (23.33)	5 (16.67)	30(100.0)

IUD= intra-uterine contraceptive device, CC=conventional contraceptive (condom), OCP=oral contraceptive pill Around one sixth (16.67%) of the total pregnancy took place among those study subjects who didn't use any contraceptive and most of them (80.0%) experienced it after six months of their lactation. Lion's share (83.33%) of the undesired pregnancies occurred among those participants who reportedly used, even in their LAM period, any of the three of modern contraceptives available free of cost under the National Family Welfare Programme of India i.e. condom, OCP and IUD in proportions of 40.0%, 23.33% and 20.0% respectively. However, the difference between the proportions was found to be statistically insignificant ($\chi^2=3.86$ at df 3). [Table-3] These pregnancies seemed to be sequel of inappropriate, inconsistent use of the contraceptives adopted at time when their menstruation didn't resume. It clearly indicates another dimension of unmet need of family planning in the form of unavailability of correct information-communication-education (IEC)/Behaviour-Change-Communication (BCC) and family planning counseling as well which is considered as the integral part and mainstay of the Family Planning services. However, as reported by the respondents lion's share of them (91.44%) were counseled either by Nurse or grass-root level health workers like Accredited Social Health Activist (ASHA) & Health Worker Female (HWF) or doctor. [Fig.1] So, the quality of the counseling might be questionable.

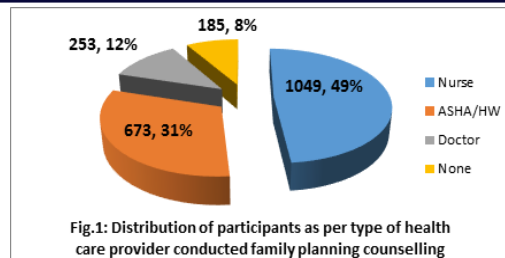


Fig.1: Distribution of participants as per type of health care provider conducted family planning counselling

DISCUSSION:

In present study 1.24%, 1.29% and 30.77% of the lactating women got themselves pregnant who exclusively breastfed their babies up to six months, 7 months and 8 months, respectively. Overall, rate was found to be within the acceptable failure rate of LAM. From their study conducted in Bihar Tiwari K et al. observed that no mother experienced unintended pregnancy during first six months of their exclusive breastfeeding with 4% pregnancies after 6 months during first year of postpartum period.¹³ In another study, Kazi A et al. reported that in the period of full or nearly full breastfeeding, while the women were amenorrheic and not using any other contraceptive, the rate of undesired pregnancy was only 0.6%. However, the rate during lactational amenorrhea alone was 1.1% at one year postpartum.¹⁵ In a study Vekemans M observed that the LAM was found at least 98% effective, comparing favorably with other contraceptive methods.¹⁶ The author opined that lactational amenorrhea method offers time to decide upon a long-term contraceptive method. LAM should always include the shift to another method when its criteria are no longer implemented.¹⁶ Trussell J made observation that the women who follow the suggestions and meet the criteria of exclusive breastfeeding, LAM is >98% effective, specially during the first six months postpartum.¹⁷ This high efficacy of LAM has been reaffirmed in a wide variety of settings. Moreover, the results yield insight on the possibility of continued use beyond 6 months. It seemed to be highly effective as an introductory postpartum method when offered in a variety of cultures, health care settings, socio-economic strata, and industrial and developing country locales. In addition, LAM acceptance complements breastfeeding behaviors without ongoing breastfeeding support services.¹⁴ In their studies Bracher et al. and Kennedy et al. observed that implications for practice fully breastfeeding women who remain amenorrheic have a very small risk of becoming pregnant in first six months after delivery when relying on lactational subfertility.¹⁸⁻²⁰

Studies reported that family planning service providers in India tend to focus their counseling on limiting methods. They find it challenging to counsel young couples about spacing methods.^{21,22}

As promotion of LAM has not been given priority in National Family Welfare programme,²³ very few providers are aware of the three conditions necessary for effective pregnancy prevention.²⁴

From the observation of their study Kashyap C et al. commented that interestingly majority of postpartum women were practicing breast feeding but half of them were not exclusively breast feeding and following the criteria of LAM of contraception. They also revealed that only 20 % of postpartum women were aware of LAM as an effective contraceptive method.²⁵ Similar study was conducted by Fabric et al. showed that majority of post-partum women did not seem to know that amenorrhea alone would protect a woman from pregnancy.²⁶

Dependence on traditional practices such as postpartum abstinence and prolonged breast-feeding without having correct knowledge of the lactational amenorrhea method makes postpartum women a prey of unintended pregnancy with all its sequels.^{23,27}

There is consensus among the researchers regarding need to raise awareness of LAM and persuade women to either follow the LAM criteria or use another method of contraception.^{26,28}

From their study Goel et al. showed that women who received advice on family planning were more likely to adopt postpartum contraception (unadjusted OR 1.63, $P < 0.001$) than those who were not advised at all.²⁹ Similar findings have been reported by studies conducted by Chhabra et al.³⁰

Lion's share (91.44%) of participants of the present study were counseled either by Nurse (49.0%) or grass-root level health workers

like Accredited Social Health Activist (ASHA) & Health Worker Female (HWF) [31.0%] or doctor (12.0%). However, the conception rate within one year of post-partum was within the evidence based failure rate of LAM i.e. up to 2.0%. But around one third (36.67%) of women experiencing unintended pregnancy were reportedly using other modern contraceptives reaffirming the fact that they didn't have adequate information of LAM as well as about the contraceptive they were using.

Study conducted by Kashyap C et al. demonstrated that only 6.8 % of the postpartum women actually attended contraceptive clinics in spite of a scheduled visit at six week post-partum.²⁵ Rossier et al. compiled data from five centers in Sub-Saharan Africa and reported huge between centre variations for attendance rates in contraceptive clinics ranging from 4 to 33 %.³¹ Offering a first family planning visit before women's discharge after a delivery could be perhaps much more effective in reaching all women as it is difficult to motivate women of developing country like India to come back to health facility for family planning at a time when most of them think that they do not yet need it.²⁵

The present study, although conducted in a particular geographical area and covering mothers belonging to almost similar socioeconomic strata has a strong message that if proper and sustained counseling is done the dual purpose of optimal infant feeding and aversion of undesired conception and all its consequences may be achieved among this marginalized women and a better healthy future generation of the country can be ensured. However, as a hospital based cross-sectional study it has restricted external validity which is needed to draw area specific strategy for further action. A community based longitudinal study might have a better scope for exploring the determinants of faulty use of LAM as well as other modern contraceptive methods.

CONCLUSION:

As an established effective method of contraception, specially for the first six months of EBF, LAM was found to offer a high degree of contraceptive protection endured for a full year during lactational amenorrhea. In a developing country like India with suboptimal contraceptive prevalence rate for various reasons LAM may prove to be a boon as it provides dual benefit of desired growth and development of the infant via breastfeeding and curbing of unintended pregnancy. For avoiding occurrence of unintended pregnancy quality counseling in relation to the family planning services through BCC by the health care providers, specially during antenatal and immediate post-natal period is to be optimized and monitored. The clients may be empowered to be able to switch over to any of the modern contraceptives after six months post-partum. However, up to one year post-partum LAM may be coupled appropriately with other methods like condom, withdrawal.

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