

Induced Lactation in Adopting Mothers

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OBJECTIVE – To study the effectiveness of chlorpromazine (Largectil) as galactagogue in adopting mothers. **METHOD** – Retrospective study of 11 cases. **RESULT** – Eleven women who wished to adopt newborn babies either from adopting agencies or from their own relatives presented with the request for initiation of breast milk. All of them were given chlorpromazine 25 mg thrice a day for 3-4 weeks with nipple stimulation 3-4 times every day. All had established lactation by the end of one month and started feeding their adopted babies. **CONCLUSION** – Chlorpromazine (Largectil) for 3-4 weeks along with nipple stimulation is effective and safe for initiation of breast milk in adopting mothers.

Key words : induction of lactation, chlorpromazine

Introduction

It is estimated that one in six couples in USA will experience difficulty in conceiving during first year and that 1-2% of couples are involuntarily sterile¹. An apparent increase in the prevalence of infertility is suggested by analysis of trends in medical visits, which reveals an exponential increase in number of visits for infertility in last decade. In India too, number of childless couples are increasing. Couples are less willing to simply accept childlessness and are aware of the available services and options for resolving infertility. A time limit with expectation of resolution of infertility should be presented, and in some cases guidance towards acceptance of childless living, adoption, donor insemination, in vitro fertilisation (IVF) and resort to surrogate pregnancy should be offered before prolonged time and resources are expended on procedures or regimens that offer little potential¹.

Surrogate mother is an exception in India and many high income group people go for IVF. Those who are not able to conceive inspite of IVF treatment and those who do not afford it, prefer to adopt new born babies either from their own families or from adopting agencies. And with that comes the request for lactation by adopting mothers. Most of the obstreticians are not aware that induced lactation is possible and it could be offered to adopting mothers.

Throughout human history there have been infants who are nursed by surrogate mothers. Nonmaternal lactation

may have been necessitated as a result of maternal death or illness or because the birthmother gave over or shared the care of her baby with another mother.

In India it is still very common in villages for lactating mothers to nurse another's baby in case the biological mother has died or is unfit to lactate. In the event that no already nursing mother was available, anthropological reports from the continent describe efforts by nonlactating mother to induce lactation by putting the baby to breast². In the United States, especially among La Leche League International members, induced lactation has been embraced as a way to provide an enhanced bonding experience for women who are adopting babies.

Materials and Methods

This is a retrospective study of 11 infertile couples going for adoption from January 1995 to January 2002. Of these, four were cases of male infertility and seven of female infertility. Out of four cases of male infertility, three had testicular agenesis and one had vas deferens blockade. Of the seven cases of female infertility, four were of primary infertility and three of secondary infertility. Four were diagnosed to have genital tuberculosis and had taken complete course of antitubercular treatment. All women belonged to the age group of 28 to 45 years and were healthy and free from human immunodeficiency syndrome, diabetes mellitus or any other major illness. All of them had undergone various treatments for infertility and were anxious to adopt and were expecting adoption within 1-1 ½ months. They requested for establishment of lactation prior to adoption. They all had gone to their gynecologists requesting for induced lactation, but received no help. At our center, all couples were interrogated for major illness like tuberculosis, sexually transmitted disease, diabetes mellitus and hereditary disorders. Hemoglobin

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estimation and VDRI of both partners were done. The women were encouraged and further motivated by our team and were put oral on chlorpromazine (Largactil) 25 mg three times a day as advised by Auerbach and Avery³ along with nipple stimulation of each breast at least for two to three minutes three to four times a day, four to six weeks prior to adoption. It was stressed that number of nipple stimulations increases the chances of induced lactation. Nipple stimulation was taught by our staff. Side effect of chlorpromazine like drowsiness or sedation was explained. They were also informed that after initiation of breastfeeding, they have to continue medicine for another one month and that the drug will be excreted in the breast milk thereby causing sedation in the baby also. All of them were telephonically assessed weekly. At the end of three or four weeks they were assessed at our center. They were asked to stop breast stimulation once they started breast feeding the child.

Results

Seven women had sufficient milk production by the end of three weeks and the remaining four had established lactation by the end of 4 to 5 weeks. Seven stopped taking chlorpromazine on their own after initiating breastfeeding, while four continued it for one month after adoption, when they were asked to stop it. Five experienced significant sedation, for the first two weeks and remained drowsy. Two experienced moderate sedation for one week.

None of the women were put on metoclopramide for increasing milk supply. All were satisfied and were followed up till 6 months after which five were lost to follow up. None of the milk samples could be analyzed for IgA, IgM antibodies and colostrum. Three adopted babies were monitored till the age of 6 months. None of them were malnourished. Remaining women informed us telephonically that their babies were doing well.

Discussion

It is not necessary to have been pregnant in order to breast feed. The special closeness fostered by breastfeeding can be profoundly comforting for both mother and child. Many women who have struggled with infertility problems, value the experience of breastfeeding even if the volume of milk they produce is small.

Prolactin and oxytocin hormones which govern lactation are pituitary hormones, not ovarian hormones. Therefore, a posthysterectomy or postmenopausal female can lactate provided her overall health is good. Estrogen in the form of birth control pills and for HRT is a lactation suppressant. Both prolactin and oxytocin are produced in response

to certain medication as well as nipple stimulation⁴.

Nipple stimulation or sucking of nipples is one of the strongest factor for letting down reflex. While there are now several regimens which use hormonal therapy to assist in bringing milk reflex, many women have induced lactation with only mechanical stimulation. This consists of breast massage, nipple stimulation and sucking either by baby or suction by mother herself. In USA and Canada, hospital graded electrical pumps are available.

Newman⁵ has even described drugs for breast changes simulating pregnancy breast changes. He has used and prescribed diane with domperidone for bringing about breast changes similar to pregnant breasts. None of the women in our group demanded breast changes simulating pregnant breast.

Several medications have the production of breast milk as a side effect. Digitalis, chlorpromazine, benzodiazepine and domperidone are just few of them. With medical management it is not necessary to have been pregnant in order to produce milk. Chlorpromazine can block ovulation, suppress estrous cycle and produce amenorrhoea and lactation in women⁶. It is antidopaminergic and antiserotonic. Dopamine in turn acts directly on pituitary to inhibit prolactin release. Auerbach and Avery³ have used chlorpromazine for inducing lactation. It has significant side effects of sedation and drowsiness. In our study five women experienced significant sedation.

Domperidone is an antiemetic drug prescribed in healthy subjects for upper gastrointestinal problems. It also increases the prolactin level. Metoclopramide has been used for inducing lactation but crosses blood brain barrier and can cause neurological problems and depression.

Milk production typically begins between 1-4 weeks after initiating mechanical stimulation. One study of induced lactation using medications describes onset of milk production between 5-13 days³. At first, the mother may have only a few drops. During the time when milk is produced women may notice changes in the color of the nipples and areolas. Breasts may become tender and fuller. Some women report increased thirst, and changes in their menstrual cycle or libido⁷. In our study, seven women had sufficient milk supply by the end of 3 weeks.

The question arises whether human milk produced in such circumstances is adequate for infant's growth? Kleinman et al⁸ looked at the chemical composition of milk produced by non-biological mothers. Milk samples were collected from five women with adopted infants

who had induced lactation by infant sucking. Milk production (at various levels) was established within 11 days without medication. Milk samples were collected during the first 5 days of milk production and compared with samples of milk from five biological mothers. The mean protein concentration in the induced lactating women was identical to that of transitional milk of post-partum donors. There were differences in the concentration of albumin, IgA and lactalbumin in the milk produced during the days immediately following birth. Levels of these constituents were higher in the colostrums of the biological mothers. Sucking alone is apparently not sufficient to produce colostrums. Nemba⁷, reported that bottle fed babies are malnourished as compared to babies who are breastfed after induced lactation. The milk brought out by non-biological mothers skips the colostrum phase and more closely resembles transitional and mature breastmilk. Kleinman et al's⁸ study does not look at other nutritional characteristics such as fats, carbohydrates or micronutrients.

Adopting mothers should be encouraged for induced lactation as it not only increases maternal bonding but also prevents malnutrition in these children. High degree of motivation combined with medication, support and encouragement is likely to be very successful. Breastfeeding by adopting mothers should be a norm.

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