

Case report:

Induced lactation case report: The journey to attain *mahram* relationship

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Abstract

Induced lactation is a process of producing breast milk in non-puerperal women. There are various reasons for adoptive mothers to breastfeed their adopted child through induced lactation method. For Muslim communities, the main motivating factor for an adoptive mother to breastfeed their adopted child is to establish a *mahram* relationship. The *mahram* relationship allows the adopted child to interact with other family members as if they are biologically related. The *mahram* relationship is achieved when adoptive mothers give breastmilk to the adopted child aged less than two years old for at least five satisfying feedings. In this paper we report the journey of two women who went through the induced lactation process in order to achieve *mahram* relationship with their adopted infant. In both cases, the mothers were finally able to produce milk, feed their adopted infant and reach *mahram* relationship.

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Introduction

A non-puerperal woman who are not undergoing the process of pregnancy and delivery may induce lactation and breastfeed a child. Induction of lactation commonly occurs among woman who intends to nurse her adopted child for various medical and socio-cultural reasons.^{1,2}

The concept of wet nursing, or breastfeeding of another woman's child is not new. In Islam, this practice creates a *mahram* relationship between the woman and her adoptive child. When a woman breastfeeds an infant who is less than two years old in five feedings or more, the child becomes a *mahram* to the woman and her husband, and establishes the family lineage of both the husband and wife.³ The relationship subsequently leads to legal prohibition of marriage among them and the adopted child having the same status as a biological child in regards of e.g. *aurah*, which addresses the body parts that must be covered with clothing while in the presence of

family and non-family members and also describes appropriate touch and interaction.³

Despite the fact that the demand of adoptive nursing is increasing, but the exact trend for induced lactation is not well established due to limited research.⁴ Therefore, guidance on how to induce lactation is still limited.⁵ This paper reports two cases of induced lactation at our centre. In both cases the aim is to be able to produce milk, breastfeed their adopted child and attain *mahram* relationship.

Case report

Case 1

A 33-year-old journalist who has a history of primary infertility presented at our lactation clinic for induced lactation. The mother adopted a 27 day old baby boy and wished to establish a *mahram* relationship through breastfeeding. Her medical history and physical examination was unremarkable. During the first consultation, drospirenone and ethinyl estradiol

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(combined oral contraceptive pills) were prescribed for 21 days. She was advised to practice skin-to-skin contact with her adopted infant and using supplemental nursing system (SNS) for feeding method.

After two weeks, she already experienced breasts engorgement. She performed skin-to-skin contact with her infant, practiced SNS feeding method and sometimes she gave direct breastfeeding to her infant. She also bought a double breast pump for breast stimulation and to assist in milk excretion. During her second visit, she was advised to perform at least eight sessions of milk stimulation per day. Each session lasted for about 30 minutes which started with bilateral breasts massage for five minutes followed by 10 minutes of milk expression. This is repeated one more time. In addition, she was advised to take natural galactogogues i.e. a tea spoon of fenugreek and three palm dates twice a day to promote breast milk production.

Four weeks after the first consultation, she consistently performed milk stimulation for five times a day and noticed the first drop of milk from her right breast. The drops of milk increased with the increased number of milk stimulation of eight times per day. She was then started on domperidone tablet at the seventh follow up week. Initially, the prescribed dose was 10mg twice daily for one week and then it was increased to 20mg twice daily for the next three weeks.

On the tenth week follow up, it was noted that she only consumed 10 mg of domperidone twice daily, instead of the prescribed dose. She complained of nipple pain during milk expression sessions which were related to a technical default of the breast pump.

During the follow up, she was able to collect and store cumulatively about 45mL of breast milk. She was advised to replace the breast pump and continue milk stimulation eight times a day. Domperidone dose was increased to 20 mg twice daily.

After 16 weeks, she managed to give first feeding to her infant who was five months old then. She was able to give the second feeding at week 18, the third feeding at week 19, the fourth feeding at week 20 and the fifth feeding at week 21. She managed to give about 90mL of milk everytime she fed her infant with breast milk. The infant was six months old when the *mahram* relationship was achieved.

Case 2

A 31-year-old physiotherapist presented at our lactation clinic for induce lactation. She was married for 11 years with no children and had history of abortion for two times in 2008. She adopted a 20-day old baby girl who she wanted to establish the *mahram* relationship through breastfeeding. Her medical history and physical examination findings were unremarkable. On the first consultation, she was prescribed with drospirenone and ethinylestradiol (combined oral contraceptive pills) and was given similar advice as Case 1. She felt a difference in her breasts size after 2 weeks on drospirenone and ethinylestradiol. She performed all the advised given as in Case 1. During week three follow up, she was taught to do milk stimulation and was advised to carry out at least eight stimulation sessions a day, similar to Case 1. At the fifth week follow up, her breasts' size increased significantly that she needed to increase her bra cup size. She performed milk stimulation eight times per day one week prior to this follow up and had observed the first drop of milk. In view of her ability to perform milk stimulation regularly, 10 mg of domperidone was prescribed twice daily for 1 week, then increased to 20mg twice daily for the next three weeks. At week nine, she was able to accumulate about 90 mL of expressed breast milk. She already fed her infant twice with 45 mL in each feeding session after seventh weeks of follow up. However, she defaulted the follow up due to her busy working schedule, but managed to continue milk stimulation regularly, taking domperidone tablet 20mg twice daily and adhered to all the instruction and advice given. Eventually, through phone conversation, she announced that the *mahram* relationship was achieved at week 15. The infant was about four months old when five satisfying feedings were given. Table 1 shows the summary of both cases.

Discussion

There are various reasons for the adoptive mothers to breastfeed their adopted child through induced lactation method. Breastfeeding helps to develop a strong bond, intimate relationship, and build trust with the children whom they did not give birth to and also for them to experience motherhood while nursing their adopted child.⁶ For Muslim, the main motivating factor for an adoptive mother to breastfeed her adopted child is to build a *mahram* relationship.⁷ Islam has set clear guidelines on the interaction between men and women who are (*mahram*) and

Table 1: Summary of two cases

Factors	Case 1	Case 2
Treatment regime with domperidone	<ul style="list-style-type: none"> • Domperidone started at follow up week 7 • Duration on domperidone: 14 weeks 	<ul style="list-style-type: none"> • Domperidone started at follow up week 5 • Duration on domperidone: 10 weeks
Progress	<ul style="list-style-type: none"> • Late start on Domperidone • Late pumping consistency achieved 	<ul style="list-style-type: none"> • Early start on Domperidone • Achieved pumping consistency in a week
Duration to achieve <i>mahram</i> status	<ul style="list-style-type: none"> • First feeding was given at follow up week 16 • Completion of five satisfying feeding: After 6 weeks of first feeding • Total follow up weeks: 21 weeks 	<ul style="list-style-type: none"> • First feeding was given at follow up week 7 • Completion of five satisfying feeding: After 8 weeks of first feeding • Total follow up weeks: 15 weeks
Mother's occupation	<ul style="list-style-type: none"> • Reporter – flexible hours (home based) 	<ul style="list-style-type: none"> • Physiotherapist – office hours
Husband's occupation	<ul style="list-style-type: none"> • Off shore officer that comes back every two weeks 	<ul style="list-style-type: none"> • Doctor
Pregnancy History	<ul style="list-style-type: none"> • No previous pregnancy 	<ul style="list-style-type: none"> • Two abortions in 2008 at first trimester
Conclusion	<ul style="list-style-type: none"> • Although she did not have her spousal support all the time but the strong determination to achieve the <i>mahram</i> status is more imperative. • Her flexible working hours reduces the stress that comes with rigid time schedule 	<ul style="list-style-type: none"> • Adhering to the treatment regime yield fast positive results • Previous pregnancy experience can shorten the duration of breastmilk production

who are (*non mahram*). *Mahrah* status guides the permissible interaction and possession. This include *aurah*, part of the guideline which explains parts of the body that must be covered when a Muslim is in the presence of the opposite sex who is either a *mahram* or *non mahram*. The *mahram* relationship is achieved when adoptive mothers give their own breastmilk to the adopted child aged less than two years old for at least five satisfying feedings.^{3,4} In the two mentioned cases, Case 1 and Case 2, both

mothers had the determination to go through the induced lactation process in order to achieve the *mahram* relationship with their adopted child allowing the family members to interact with the child as though as the child is biologically related.^{3,4}

There are variety of recommendations on how to induce lactation depending on when the mother would like to start. The mother may choose to either start the process before or after the arrival of the infant.⁵ However, adoptive mothers usually are given a very short notice on when they will receive the infants. Hence the mothers have limited time to prepare for induce lactation.⁸

In these two cases, both of the mothers only knew that they will receive their adopted child after the infants were born. They came for the first consultation when the infants' age was around one month old. During their first consultation, a combination of oral contraceptive pills were prescribed. This increases the levels of estrogen and progesterone hormones which causes physiological changes to the body similar to a pregnant woman. At this time the breasts are getting ready for milk production.⁹ The estrogen stimulates the elongation of ductal epithelial cells and potentiate prolactin production. Whereas, the role of progesterone is to induce the branching of duct formations from the main tubules.⁵ Since these hormones may impede the milk production, they were discontinued after breasts changes were noticed to allow for uninhibited milk secretion.^{5,9}

For induced lactation proses to be successful, the next most important step after breasts preparation is milk stimulation.^{5,9} Studies found that, women reported varying success rates with the different methods of milk stimulation. Double electric pump is the most frequent milk expression method used because it was proven to save time and increase milk production.^{2,9,10} However, some women reported

a better success rate using manual expression.^{2,9} Relaxation technique, direct breastfeeding, skin-to-skin contact, body massage, expressing milk with the presence of infant and increasing the frequency of milk expression between 8 to 12 times per day resulted in increment of milk production.^{4, 11}

In this paper, both of the mothers were advised to do skin-to-skin contact with their infants, practice SNS feeding, perform bilateral breasts massage before expressing their milk with double electrical pump. Combining breast massage with breast expression increases the amount of milk expressed.^{10, 12}

In addition, mothers were already advised to express their milk eight times per day before they were started on the domperidone tablet. The duration of milk stimulation session is about 30 minutes which mimics the nursing habits of newborns.^{2,9,10} Evidence showed that regular milk stimulation ensures the breasts are well drained to promote continuous milk synthesis. However, the frequency of milk stimulation requires a very high level of commitment, motivation and determination from the mothers.¹¹

After the mothers were able to achieve regular expression for eight times a day, the domperidone tablet was prescribed. Besides that, both of them have taken natural galactogues i.e. palm dates and fenugreek as early as two weeks after their first consultation. Palm dates and fenugreek herbal tea were found to be helpful in enhancing breast milk production during the early postpartum period.¹³

Domperidone was among the most frequently prescribed galactogues in mothers who underwent induced lactation process.^{2,4} The Academy of Breastfeeding Medicine Clinical Protocol Nine in 2011 suggested that galactogues should be prescribed at the lowest possible dose for the shortest period of time and must not exceed the recommended therapeutic doses. Prescription drugs used as galactogues constituted as "off-label" in most countries.¹⁴ For our cases, total duration of domperidone used for the first and the second case was 13 and 10 weeks, respectively. Both of the mothers decided not to continue domperidone tablet once they have achieved five satisfying feedings to their adopted children. The protocol also suggested to gradually discontinue the drug (tapering the dose) at the end of the therapy.¹⁴

In Case 1, the first feeding was achieved at week 16 of follow up and she managed to complete five satisfying feedings after five weeks from the first feeding. The *mahram* relationship was achieved on week 21 of follow up. For Case 2, the first feeding was given at follow up week 7 and the five satisfying feedings were completed after 9 weeks from the first feeding i.e. follow up week 15.

The first adoptive mother was late to achieve five satisfying feeding mainly because she was late in achieving eight consistent milk expression a day. Consequently, she was late to be prescribed with domperidone i.e. follow up week 6. However, for Case 2, she was able to achieve consistent milk expression at follow up week 4, hence domperidone was started earlier.

Conclusion:

Achieving *mahram* relationship is the main reason for our adoptive mothers to induce lactation. Both cases demonstrated the desired of becoming *mahram* by successfully achieved five satisfying feedings at week 21 and 15, respectively. It is more challenging for working mothers who work odd hours to maintain regular milk stimulation hence they usually took a longer time to achieve *mahram* relationship. Support from husband and family members are important but the mothers' ability to adhere to the treatment regime and comply to milk stimulation schedule are the most imperative success factor.

Ethical clearance:

This case report was ethically approved.

Conflict of interest

The authors has no conflict of interest to declare.

Author's contribution:

Data gathering and idea owner of this study: Noraini M, Zaharah S, Tengku Alina TI

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Figure 1: Accumulated expressed breast milk from Case 1. The frozen expressed milk was thawed before it was fed to her child.



Figure 2: Accumulated breast milk of Case 2. Milk was put in syringes and kept in the fridge until the accumulated milk was enough for feeding.

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