A Study to Find the Prevalence of Breast Engorgement among Lactating Mothers

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Abstract

Introduction: Breast engorgement problem was common in early days and also after weeks of breast feeding. This frequent problem can happen to lactating mother who don’t or can’t breast feed as well as those who do. It is usually caused by an imbalance between milk supply and infant demand, if engorgement left untreated it can lead to potentially serious issues including painful blebs, plugged milk ducts or mastitis.

Aim: The study aimed to find out the prevalence of breast engorgement among lactating mothers with vaginal delivery, lower segmental caesarean section.

Materials and Methods: A total of 90 women were selected from Saveetha Hospital and Saveetha Rural Health Centre, based on the inclusion criteria Saveetha Hospital and Saveetha Rural Health Centre, based on the inclusion criteria of Lactating mothers with Breast Engorgement and pain for at least 2-3 days who underwent vaginal delivery or lower segmental caesarean section. Exclusion criteria were lactating mothers with soft breast and non lactating mothers and other breast problems. After getting the consent from mothers and after explaining the Six Point Self-rated Engorgement Scale (SPES) and Visual Analogue Scale (VAS). They were asked to rate their level of engorgement and pain. The materials used were VAS and SPES.

Results: The study showed that the prevalence of breast engorgement among lactating mothers was 65%-75%.

Conclusion: The study concluded that the prevalence of breast engorgement among lactating mothers was 65%-75%. Breast engorgement is a major issue in the lactating mothers can leads to many problems like blocked milk ducts, feeding difficulties, a depressed milk ejection reflex, infection, inflammation of the breast and sore/cracked nipples.

Keywords: Breast engorgement; Breastfeeding; Cesarean delivery; Six point self-rated engorgement scale; Vaginal delivery; Visual analogue scale

Introduction

Breastfeeding is a mother’s gift to herself, her baby and the earth, there is no substitute for mother’s milk. Colostrum is a yellowish liquid that contains important nutrients and antibodies that a baby needs right after birth [1]. During initial stages of breastfeeding, mother breast produces colostrum in small amounts. But after making a couple of days, they’re going to increase in milk production. So breast becomes fuller and firmer. This swelling is not only caused by the greater amount of milk, but also by increased blood flow and extra lymph fluids in breast tissue [2]. For most new mothers, these feelings of heaviness pass without problems when their baby feeding well and frequently. But some produce more milk than their breast can hold which makes them feel rock hard and uncomfortably full - a condition called engorgement. Breast engorgement is a problem [3] that is commonly encountered in breast feeding mothers and it can lead to potentially serious issues including painful blebs, plugged milk ducts or mastitis [4]. There are many lactating mothers suffering with breast engorgement [5]. Severe engorgement can make it difficult to baby to latch on to the breast properly and feed well. Engorgement may even cause body temperature to rise around 99-100 degree F, it is also known as milk fever. According to Academy of Breastfeeding Medicine Protocol Committee, breast engorgement is defined as the swelling and distension of the breasts [6]. Usually in the early days of initiation of lactation caused by vascular dilation as well as the arrival of the early milk. Breast engorgement during the first week of breast feeding and can also occurs as a result of delayed, infrequent or interrupted removal of milk from the breast [7,8]. The factors which may place a mother at a higher risk of engorgement are failure to latch on to the breast properly and feed well. Engorgement may even cause body temperature to rise around 99-100 degree F, it is also known as milk fever. According to Academy of Breastfeeding Medicine Protocol Committee, breast engorgement is defined as the swelling and distension of the breasts [6]. Usually in the early days of initiation of lactation caused by vascular dilation as well as the arrival of the early milk. Breast engorgement during the first week of breast feeding and can also occurs as a result of delayed, infrequent or interrupted removal of milk from the breast [7,8]. The factors which may place a mother at a higher risk of engorgement are failure to lock onto the breast properly and feed well. Engorgement may even cause body temperature to rise around 99-100 degree F, it is also known as milk fever.

Materials and Methods

This was an observational study conducted in Saveetha Hospital and Saveetha Rural Health Centre and took nearly 3 months to complete the study. A total of 90 lactating mothers belong to rural areas who complain of engorgement and pain for at least 2-3 days was selected. Samples collected by convenient sampling with the inclusion criteria of lactating mothers with breast engorgement and pain for at least 2-3 days who underwent vaginal delivery or lower segmental caesarean section. Exclusion criteria were lactating mothers with soft breast, non lactating mothers, nipple problems such as nipple sore, nipple cracks, inverted nipple or postnatal complications in previous
her vaginal delivery or lower segmental caesarean section. The patients were fully explained about the study and after getting consent from the mothers. They were also given a detailed explanation about the Six Point Self-rated Engorgement Scale (SPES) [11] and Visual Analogue Scale (VAS) [12]. They were asked to rate their level of engorgement and pain. The outcome measures used were SPES and VAS.

Engorgement was assessed using 6-Point Self Rated Engorgement Scale from 1 to 6 (Figure 1)

1- being soft, no change
2- being slight change
3- being firm, non-tender
4- being firm, beginning tenderness
5- being firm, tender
6- being very firm, very tender, [Any measure of 3- firm, no tender or more after baseline was the threshold for this subjective rating]

Figure 1: Six point self rated engorgement scale.

Pain was assessed subjectively by using the visual analogue scale, a subjective measure of self-rated pain on a numerical scale of 1-10 (Figure 2)

0- Being no pain
1-3 being mild pain
3-5 being moderate pain
5-7 being sever pain
7-9 being very severe pain
9-10 being worst possible pain [10 being the worst possible pain, 5 moderate pain, 0 no pain]. The threshold for pain was having at least one subsequent pain measure 3 points or more above baseline.

Figure 2: Visual analogue scale.

The participants in this study belongs to lower socio economic status and had no idea about breast feeding positions, breast care, breast engorgement and problems related to breast.

Results

Total samples of 90 belongs to rural population were randomly selected as a part of the study. Lactating mothers were asked to rate their level of breast engorgement in their breast, according to SPES and also asked to rate their level of pain according to VAS. This study shows that 59-68 lactating mothers complained engorgement and pain in their breast. The result of the study was 65%-75% (Figure 3, Table 1).

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Discussion

In this study breast engorgement was self-reported and diagnosed on the answers given by the lactating mothers. This study provides an opportunity to analyze the prevalence of breast engorgement among lactating mothers with vaginal delivery, lower segmental caesarean section. The samples were selected to find the prevalence with the help of Six Point Self-rated Engorgement Scale and Visual Analogue Scale. It is proven that SPES and VAS have their own validity and reliability. The SPES and VAS are valid diagnostic tools used for measuring breast engorgement and pain. SPES and VAS appears to be valid and reliable measures to assess breast engorgement and pain. Among 90 lactating mothers, this study showed that 59-68 lactating mothers complained engorgement and pain. Results showed that 65%-75% lactating mothers suffering with breast engorgement. Clearly health professionals should educate the mother who intends to breast feed that she is most likely to experience some degree of engorgement during the first two weeks post partum and perhaps for a longer duration. The health professional should not assume that the degree of engorgement or pattern is the same for every breast feeding mother. According to Lawrence [13], it is important that back pressure in the milk should be prevented from developing and eventually inhibiting milk production uncomfortable engorgement is best prevented by frequent breast feeding around the clock, since the infant is the most effective mechanism for removal of milk. Applebaum [14] suggest that if the infant is sleepy or sucking is impaired temporarily, the mother’s residual milk and high milk tension may be relieved by breast massage and manual expression.

Conclusion

The study concluded that the prevalence of breast engorgement among lactating mothers were 65%-75% in rural population. At present there is no approved medicine to ‘dry up’ milk supply and prevent engorgement. We need to identify effective preventive and treatment measures for engorgement with no side effects to mothers and the baby, which not only helps to relieve the discomforts of lactating mother but also helps to promote proper milk to the baby.

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