

# A STUDY TO ASSESS THE EFFECT OF LUKE WARM WATER COMPRESS VERSUS BREAST MASSAGE FOR BREAST ENGORGEMENT IN PEUPERIUM AMONG POSTNATAL MOTHERS IN SELECTED HOSPITAL OF PUNE

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## ABSTRACT

**Introduction:** Postpartum engorgement of the breast is important because it can be extremely painful, as it may predispose to the development of nipple fissure and breast abscesses, and because it is associated with lactation failure. Severe engorgement often leads to lactation failure, the reason why the milk cannot be withdrawn is that the ducts are closed by the pressure in the tissues around them.

**Present study title:** A study to assess the effect of luke warm water compress versus breast massage for breast engorgement in peuperium among postnatal mothers. The objectives are to assess the breast engorgement ,to find the effect of lukewarm water compress and breast massage on breast engorgement, to compare the effect of lukewarm water compress with breast massage for breast engorgement in peuperium among postnatal mothers, and find out,the association between the degree of breast engorgement with their selected demographic variables.

**Material and Methods:** Researcher adopted quantitative research approach. Quasi experimental pre-test post-test two group was used. Data collected on 60 samples. Non-probability Purposive Sampling Technique was used.

**Result:** It was seen that in lukewarm water compress group, 98.3% of the primi postnatal mothers had severe pain (score 7-9). This indicates that the pain reduced remarkably after lukewarm water compress. Average pain score in pre-test was 7.7 which reduced to 4.5 in post-test. t-value for this test was 19.6 with 59 degrees of freedom. Corresponding p-value was of the order of 0.001 which is small (less than 0.05), null hypothesis is rejected. Lukewarm water compress was significantly effective in improving the pain due to breast engorgement among postnatal mothers. In pre-test breast massage group, 98.3% of the primi postnatal mothers had severe pain (score 7-9). This indicates that the pain among postnatal mothers had reduced remarkable after breast massage. Average pain score in pre-test was 7.7 which reduced to 1.7 in post-test. T-value for this test was 50.8 with 59 degrees of freedom. Corresponding p-value was of the order of 0.001 which is small (less than 0.05), null hypothesis is rejected. Breasts massage was significantly effective in improving the pain due to breast engorgement among postnatal mothers.

**Conclusion:** It was evident that Breast massage was significantly more effective than lukewarm water compress in improving the pain due to breast engorgement among the postnatal mothers.

**(Keywords: Lukewarm Water Compress, Puerperium, Breast engorgement, )**

## INTRODUCTION

To become a mother is the greatest joy for every woman. Every woman cherishes to experience motherhood. The bondage between them is severed even after the life comes out from her womb as she nourishes her baby with a milk which has found no substitute yet after advances in science and technology, that precious milk is known as "Mother's Milk." A wealthy nation is the one which has healthy postnatal mothers, so to achieve this, all the physical, social and emotional need of a postnatal mother should met properly. The duration of perpurium period is six weeks. In India within an hour of birth 96% of new- borns are breast fed of that urban population is 29% and rural population is 21 %.

Childbirth is a life changing event. A wonderful and joyful experience. For many women it can also be a difficult period while going through it with new problems in few mothers. Nowadays, many Postnatal mothers face breastfeeding problems, such as

breast engorgement which is one of the major issue due to excessive milk production, outflow obstruction or poor sucking of the baby and poor breastfeeding technique. In the early postpartum period breast engorgement is a condition that affects postnatal mothers. The discomfort and tenderness present during the breast engorgement is a major contributing factor to the early cessation of breastfeeding. Many treatments for breast engorgement have been explored. Breast engorgement is a major issue in the early postpartum period due to the influence of hormonal shift and increase milk production.<sup>1</sup>

Breast engorgement is a major issue in the early postpartum period as the breast, due to hormonal shift, increases milk production rapidly from 36 to 96 hours postpartum. For most women engorgement is at 3 to 5 days after birth and slowly recedes but may last for 2 weeks.<sup>2</sup>

Multifarious women are more likely to engorgement than primiparous women breast engorgement is a problem in the early days after the birth and a common reason for early weaning.

Severe engorgement can make it difficult for the baby to latch on to the breast properly and feed well. This problem may worse, and because of this baby may not receive enough milk, breast may not empty completely or the nipple may become sore and cracked. Then baby attempts to latch on an overfull breast. If the mother is feeding less due to nipple sore less than the engorgement will increase. Without treatment of severe engorgement leads to block the milk duct and produce breast infection, which is called mastitis.<sup>3</sup>

Breast engorgement is one of the common problem that occurs in 3<sup>rd</sup> and 4<sup>th</sup> postpartum day due to excessive production of milk, obstruction to outflow of milk or poor removal of milk by the baby. This condition is a common reason that mothers stop breast feeding sooner than they had planned.<sup>4</sup>

A study was conducted on breast engorgement its contributing variables and variables amenable to nursing intervention. The focus of the study was to identify variables that correlate significantly with breast engorgement and that might be related to nursing. Data on the initiation of feeding, feeding duration, rate of milk maturation and supplementation were collected from 54 women. These variables were found to be significantly correlate with breast engorgement.<sup>5</sup>

A study was conducted on breast engorgement its pattern and selected outcome. For 14 days following birth, 114 breast feeding mothers rated their level of breast engorgement twice daily using “Six- point engorgement scale.” For district pattern of intense engorgement emerged when plotted; mothers experience with a belt shaped, a multi model pattern of intense engorgement or a pattern of minimal engorgement, The study suggests that characteristics of mother and infant, and feeding frequency were similar across the four breast pattern.<sup>6</sup>

A study was conducted to assess the effect of cold cabbage leaves and hot and cold compress in the postnatal ward of All India Institute of Medical Science [AIIMS]. The study comprised of 60 mothers. 30 in the experimental group and 30 in the control group. The control group received alternate hot and cold compress and the experimental group received cold cabbage leaf treatment for relieving breast engorgement. Result showed that both the treatment were effective in decreasing breast engorgement and the pain in postnatal mother ( $p \leq 0.01$ ) cold cabbage leaves and hot and cold compress were both equally effective in decreasing breast engorgement ( $p = 0.07$ ). Whereas hot and cold compress were found to be more effective than cold cabbage leaves in relieving pain due to breast engorgement ( $p \leq 0.001$ ) in postnatal mothers.<sup>7</sup>

### Materials and methods

In present study, Researcher adopted quantitative research approach. Quasi experimental pre-test post-test two group was used. The study population consisted of 60 postnatal mothers admitted in hospital with breast engorgement out of which 30 in experimental group and 30 in control group. Non-Probability purposive Sampling Technique was used.

A Structured Observational Checklist was developed which had three sections: Demographic profile, Observational checklist, Wong's Becker's pain scale to assess pain, procedure of lukewarm water compress and Breast massage.

**RESULT:**

Analysis of data related to breast engorgement among postnatal mothers

N = 30, 30

Sr. No.	Pain	Breast Massage 30		Luke warm water compress 30	
		Freq.	%	Freq.	%
1.	No Pain (Score 0)	0	0.0%	0	0.0%
2.	Mild (score 1-3)	0	0.0%	0	0.0%
3.	Moderate (Score 4-6)	1	1.7%	1	1.7%
4.	Severe (Score 7-9)	59	98.3%	59	98.3%
5.	Worst (Score 10)	0	0.0%	0	0.0%

The data presented in table (2) shows that in lukewarm water compress group and breast massage group, 98.3% of the primi postnatal mothers had severe pain (score 7-9) and 1.7% of them had moderate pain (score 4-6)

**Analysis of data related to the effect of lukewarm water compress and breast massage on breast engorgement. N = 30, 30**

Sr. No.	Pain	Breast Massage 30		Luke warm water compress 30	
		Freq.	%	Freq.	%
1.	No Pain (Score 0)	0	0.0%	0	0.0%
2.	Mild (score 1-3)	0	0.0%	0	20.0%
3.	Moderate (Score 4-6)	1	1.7%	1	80%
4.	Severe (Score 7-9)	59	98.3%	59	0.0%
5.	Worst (Score 10)	0	0.0%	0	0.0%

The data presented in table (3) shows that in pre-test lukewarm water compress group, 98.3% of the primi postnatal mothers had severe pain (score 7-9) and 1.7% of them had moderate pain (score 4-6). In post-test, 20% of them had mild pain (score 1-3) and 80% of them had moderate pain (score 4-6). This indicates that the pain reduced remarkably after lukewarm water compress.

Analysis of data related to comparison of the effect of lukewarm water compress with breast massage on breast engorgement among postnatal mothers. N = 30, 30

Sr.No.	Group	Mean	SD	Z	Df	p-value
1.	Luke warm water compress	3.2	1.3	13.8	118	0.001
2.	Breast massage	6.0	0.9			

The table shows that Researcher applied two sample z-test for the comparison of effect of lukewarm water compress with breast massage on breast engorgement. Average effect in lukewarm water compress was 3.2 which was 6 for breast massage group. T-value for this test was 13.8 with 118 degrees of freedom. Corresponding p- value was of the order of 0.001 which is small (less than 0.05), null hypothesis is rejected. Breast massage was significantly more effective than lukewarm water compress in improving the pain due to breast engorgement among postnatalmothers.

#### Discussion: -

The present study is designed to assess the effect of lukewarm water compress versus breast massage for breast engorgement in peuperium among postnatal mothers.

In relation to the other study, the discussion in this study states that breast massage is a traditional method as it increases the blood circulation, and it is effective for breast engorgement. The experimental group was given massage twice a day. Similarly in present study, the breast massage was given thrice a day to the experimental group using purposive sample, the sample size was 30, Wong's Baker's scale was used to assess the pain scale.

The research concluded with the good effect of breast massage for breast engorgement as in the present study the breast massage was given for ten min thrice a day and therefore the corresponding p-value was 0.001<sup>8</sup>

A double blind randomized clinical trial to identify the effect of hot application and breast massage in relieving the breast engorgement among 100 postnatal mothers in the city of Amman. The samples were divided into two groups. Experimental groups received breast massage and control group received hot application. The study concluded that, application of breast massage was effective in reducing the breast engorgement.<sup>9</sup>

In relation to the other study, the discussion in this study states that there are various methods used to relieve engorgement, but breast massage is also an effective method, the samples were divided into two groups. Similarly in the present study the samples were divided into two groups breast massage group and lukewarm water compress group. In pre-test lukewarm water compress group 98.3% of postnatal mothers had severe pain (score 7-9), In post-test after giving lukewarm water compress the pain reduced remarkably there was moderate pain (score 4-6).<sup>10</sup> There is no association between the degree of breast engorgement with their selected demographic variables of age, income, occupation number of abortion, any gynecological surgery, any disease condition, age of Menarche, initial hours of breastfeeding.

**Conclusion**

The purpose of the study was to assess the effect of Luke warm water compress versus breast massage for breast engorgement in puerperium among postnatal mothers. The research was a learning experience for the investigator which gave her better exposure to the research process. In this study since the ( $p < 0.05$ ),  $H_0$  (null hypothesis) was rejected. It is evident that the breast massage is more effective than lukewarm water compress for breast engorgement

**References:**

1. Thomas, Maju Chuugani, Angel Akansha, "A Quasi-experimental study to Assess the Effectiveness of Chilled Cabbage leaves on Breast Engorgement among Postnatal Mothers" , ADR Journal, June 2017, vol.4:8-13.
2. Apurva A, Mahadalkar, "Comparative study Effectiveness of Ultrasound and Transcutaneous Electrical Nerve Stimulation in Postnatal Painful Breast Engorgement", International Copernicus value Journal, May 2015, Vol. 6: 58-62.
3. M Newton 61 (3), "American Journal of Obstetrics and Gynaecology" Vol 5: 664-667.
4. Sharron S Humenick "Breast engorgement" Journal of Human Lactation, March 2016, Vol2: 87-93.
5. Niles Newton, "Nipple pain and damage", The Journal of Paediatrics Elsevier publication, Vol4: 411-423.
6. R. Nalini, G. Bhuavaneshwari, "Effectiveness of Cold and Cabbage leaves Vs Hot water application on Breast Engorgement", International Journal of Science and Research, June 2017, Vol4:838-840.
7. De Oliveria L.D. "Effect of intervention to improve breast feeding technique of exclusive breast feeding & lactation related problems", Journal of Human Lactation, 2016 Aug 22, Vol3: 315-21.
8. Kee WH, Tan SL, LEE V, Salmon YM. "The treatment of breast engorgement with Serrates," Singapore Medicine Journal, 2015 Feb, Vol11:48-54.
9. Moumita Manna, Lily Podder (2016), "Effectiveness of Hot Fomentation versus Cold Compression on Breast Engorgement," International Journal of Nursing Research and Practice, 2017 Vol.3:13-20.
10. Cherine, K. Khalil, N. Hassanein, H. Sholkamy, "Management of the third stage of labor", International Journal of Midwifery and Obstetrics, May 2016, Vol4:87-89.

