



Effectiveness of Chilled Cabbage Leaf Application on Breast Engorgement among Post Partum Women's

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Abstract

Background: Breast engorgement is a painful tenderness during early postpartum period that adversely affects breastfeeding. It occurs because of increase milk volume, vascular congestion, and improper breastfeeding. It's very painful condition to the post partum Mothers which affects breast feeding and activity of daily leaving of post natal women's.

Methods: A Quasi experimental non Randomized control group Research design utilized for This study, Sample consisted of 60 postpartum women's who Satisfied the inclusion and exclusion Criteria of the study. Of 60 postpartum women's 30 assigned to experimental group with chilled cabbage leaf application and 30 to control group with warm water compression. Post test data collected after the Intervention.

Result and Conclusion: Findings reveal that both chilled cabbage leaf application and hot compression over breast is equally effective reliving pain and engorgement.

Keywords: breast engorgement, cabbage leaves, post partum women's.

Introduction

Breast engorgement causes discomfort and tenderness and pain that affect breastfeeding mothers early in the postpartum. Results of the engorgement are a major contributing factor to the early cessation of breastfeeding. Very few researches have been proven to monitor the effect of cabbage leaves application on breast engorgement.

Engorgement may lead to mastitis and untreated engorgement puts pressure on the milk ducts, often causing a plugged duct. The woman will often feel a lump in one part of the breast, and the skin in that area may be red and or warm. If it continues unchecked, the plugged duct can become a breast infection, at which point she may

have a fever or flu-like symptoms. Minimal or no engorgement in the first week postpartum has been associated with the sufficient milk^[1], early supplementation and the higher percentage of breast feeding decline in the early week. 85% have been reported in the literature base on numerous definitions and are usually limited to first few days of the postpartum. Peak report on between the first few days i.e. day 3 and day 6^[2] Accumulation of milk and the resulting engorgement is a major trigger of apoptosis, or programmed cell death that cause involution of the milk secreting gland, milk re-absorption, collapse of the alveolar structure and the cessation of milk production^[3]

Deprivation from breast feeding by neonate is very painful for the post natal mother as well as it adversely affects the nutritional outcome of the newborn, the study was taken up with the aim to cost effective remedy to relieve breast engorgement among post natal women's.

Objectives

1. To assess the effectiveness of chilled cabbage leaf application and hot compression. On Breast engorgement in terms of manifestation.
2. To compare the application of chilled cabbage leaf application with hot compression on breast engorgement.

Materials and Methods

An evaluative research approach is found to be most suitable for the attainment of the objectives of the study. Research design selected for this study is Quasi experimental non Randomized control group Research design.

Definitions of Terms

Chilled cabbage leaf application: cabbage leaf refrigerated in freezer for 30 min prior to the procedure then applied over the engorged breast inside women brassiere for 20min.

Warm compression: application of pre warmed sponge cloth over the engorged breast .the temperature of water ranged between 43 degree Celsius to 46 degree Celsius, gauge sponge are frequently replaced after 2 minutes for 20 minute duration.

Sampling Criteria

Inclusion Criteria

1. Post partum Women's who are willing to participate in the study and who have engorged breast

Exclusion Criteria

1. Mothers allergic to sulpha drugs
2. Mothers on lactation suppressant drugs.
3. Infection, abscess on the breast

Sampling Technique

Non probability –purposive sampling

Sample and Sample Size

Sample consisted of 60 postpartum women's who Satisfied the inclusion and exclusion criteria of the Study. Of 60 postpartum women's 30 assigned to experimental group with chilled cabbage leaf application And 30 to control group with hot water compression. Post test data collected after the intervention.

Setting: District women's hospital

Procedure

All participants were selected after the fulfillment of inclusion and exclusion criteria. A written informed consent was obtained from the study participant's e. The compress was left on until the leaves became wilted, that is for about 30 minutes. The procedure was Repeated (application of chilled cabbage leaves) four times that is every 6 hourly per 24 hours for 2 days. Post treatment assessment was carried out to evaluate the effectiveness of chilled cabbage leaves to reduce the pain and severity of the breast engorgement.

GROUP	PRE TEST	INTERVENTION	POST TEST
Experimental group	O1	X _c	O2
Control group	O1	X _w	O2

Keywords

O1=pre test assessment of the breast engorgement

O2= post test assessment of the breast engorgement

X_c:Intervention (Chilled cabbage leaf application)

X_w: Intervention (Warm water application)

Tools applied

Section A: Part A consist of

1. Socio Demographic Performa with maternal characteristics
2. Past and present obstetric history with Maternal characteristics.

Section B

- Numerical pain rating scale and assessment of breast engorgement manifestation.
- Six point engorgement scale: the scale developed by Hill and Humenick. The

scales used assess the degree of breast engorgement with scoring from 1 to 6.

- 1) For soft and no changes in breast
- 2) Slight changes in the breast
- 3) Firm and no tender breast
- 4) Firm and beginning of tenderness in breast

5) Firm and tender of the breast

6) For firm and very tender

Data analysis and interpretation

Data was analyzed on the basis of objectives and hypothesis by using descriptive and inferential statistics.

Results and Discussion

Table 1: Sociodemographic Charasteristic Percentage Distribution of Sample (n=60)

SL NO.	SOCIODEMOGRAPHIC CHARACTERISTIC		EXPERIMENTAL GROUP (chilled cabbage leaf)	CONTROL GROUP (warm water compression)
1	AGE	18-22yr	22%	24%
		23-27yr	48%	52%
		28-32yr	16%	18%
		33 and above	14%	6%
3.	Parity	Primipara	66.66%	63.33%
		Multipara	33.33%	36.66%
4.	Community	Rural	83.33%	90%
		Urban	16.67%	10%
5.	Education	No formal Education	16.67%	30%
		Primary	20%	33.33%
		Senior Secondary	36.66%	30%
		Graduate and above	26.66%	6.67%
6.	Occupation	Home maker	63.33%	65%
		Working	36.66%	35%

Table 1 Represents the sociodemographic profile of Post natal Women's in Experimental and control group which reveals the majority of the postnatal women's are between age group of 23-27 years i.e. 48% in experimental and 52% in control followed by 18-22 years, 28-32yrs, and 33 years and above respectively.

Primipara women experienced more breast engorgement ie 66.66% in Experimental and 63.33% in control in comparison to the multipara 33.33% in experimental and 36.66% in control group.

The majority of the postnatal women's belong to rural community i.e. 83.33% in experimental and

90% in control in comparison to the urban that constitute 16.67% in Experimental and 10% in control group.

With regard to the Educational status the majority of the postnatal women's are literate up to senior secondary level, followed by Graduate and above, primary education and no formal education respectively in both group.

With regard to the occupational status of the post natal women's majority of the women's are home maker i.e. 63.33% in experimental and 65% in control group, Working women constitute 36.66% in experimental and 35% in control group.

Table 2: Distribution of the sample on the basis of maternal characteristics (n=60)

SL NO.	MATARNAL CHARACTERISTIC		EXPERIMENTAL GROUP (chilled cabbage leaf)	CONTROL GROUP (warm water compression)
1.	Mode of delivery	Normal vaginal delivery	64%	66.66%
		CS(caesarian section)	36%	33.33%
2.	Post partum days	1-3	77%	65%
		3-5	23%	35%
3.	Breast feeding	Yes	98%	97.30%
		No	2%	1.7%
4.	Frequency of Breast feeding	1 hr	34%	25%
		2 hr	44%	39%
		3 hr and above	22%	36%
5.	Duration of breast feeding	10 minute	28%	25%
		20 minute	68%	70%
		30 minute	04%	05%

Table 2: Represents the maternal characteristic of the post natal women's which reveals that majority of the women's has undergone normal vaginal delivery i.e. 64% in experimental and 66.66% in control group in comparison to the caesarian section i.e.36% in experimental and 33.33% in control group. 77% of the postnatal women from experimental group and 65% of the women's from control group experienced Manifestations of breast engorgement in 1-3 days of delivery. With respect to the breast feeding status majority of the women's are feeding to their newborn in both the group i.e.98% in experimental and 97.30% in control group.

With regard to the frequency of the breast feeding in experimental group 34% of the women's trying

to feed each hour, followed by 44% who feed after every 2 hr and 22% of the post natal women's feed after 3hr and above , same as Control group in which 25% of the women's trying to feed each hour , followed by 39% who feed after every 2 hr and 36% of the post natal women's feed after 3hr and above.

With respect to the duration of the breast feeding the majority of the women feeding up to 20 minutes i.e 68% in Experimental and 70% in control group, followed by 10 minutes ie 28% in experimental and 25% in control group and lastly with 30 minutes with 4% in experimental and 5% in control group.

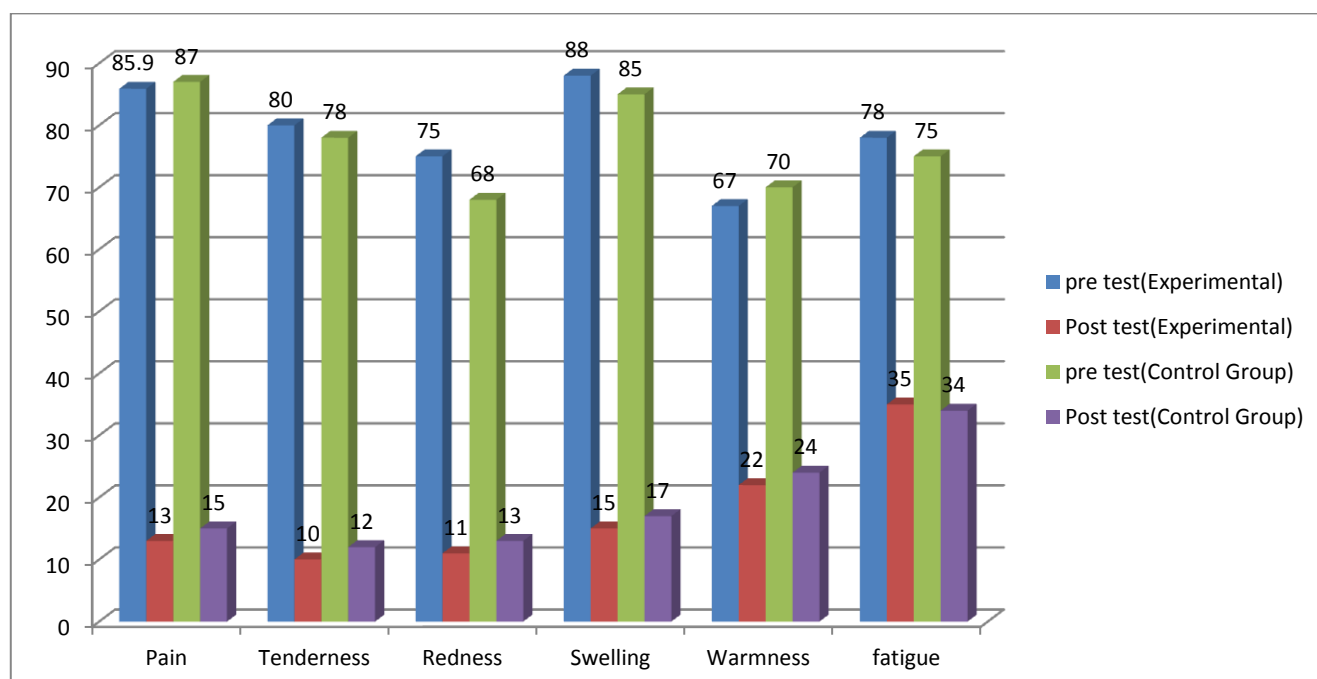


Figure-1: Pre test and post test distribution of the sample on the basis of manifestation of Breast engorgement among Experimental Group (chilled cabbage leaf) and control group (warm water compression)

A severe degree of pain tenderness, swelling warmness fatigue was experienced by postnatal women's in Experimental and control group.

With regard to the pain a significant reduction in pre-test (85.9%) to post test score (13%) was observed in experimental group with chilled cabbage leaf application similarly with control group also a reduction in pre-test(87%) to post test score(15%) was observed, also breast tenderness is reduced from pre-test (80%) to post test score

(10%) in experimental group with chilled cabbage leaf application and with control group with warm compression it is reduced by pre-test (78%) to post test score (12%).

A significant reduction in redness was observed experimental group in pre-test (75%) to post-test (11%) similarly in control group the difference is in pre-test (68%) to post-test (13%).

Swelling is also reduced significantly after the intervention in both the group i.e. in experimental

pre-test (88%) to post-test (15%) and in Control group from pre-test (68%) to post-test (13%).

Warmness which is also a sign of inflammation is also reduced significantly after the intervention in both the group i.e. in experimental pre-test (68%) to post-test (22%) and in Control group from pre-test (70%) to post-test (24%). Fatigue is reduced by 78% to 35% in Experimental group and 75% to 34% in control group.

Similar findings are found in a randomized control trial with the evaluate the effect of cabbage on mother's perception of breast engorgement and

the influence of this treatment on breast feeding practices. The subject 120 breast feeding women 72 hours postpartum were randomly allocated to an experimental group who receive application of cabbage leafs to their breast, or to control group who receive routine care. Result showed that at 6 weeks women who receive the cabbage leaf application were more likely to be breast feeding exclusively. 76 and 58% (35/ 46 vs 29/ 50), ($p=0.09$) and their mean duration of exclusive breast feeding was longer (36 vs 30 days, $p=0.04$).^[4]

Table 3: Comparison of mean Pre and post treatment Breast encouragement score among Experimental and control group

GROUP	PRE-TEST		POST-TEST		P
	MEAN	S.D	MEAN	S.D	
EXPERIMENTAL GROUP	5.81	0.761	2.05	1.084	<0.001**
CONTROL GROUP	5.68	0.841	2.11	1.04	<0.001**

**Significant

Table 3: A significant reduction on comparison of mean pre test and post test of the breast engorgement score was observed both in experimental and control group and both the intervention was found to be effective in reducing breast engorgement manifestations.

Summary and Conclusion

The greater breastfeeding success in the experimental group may have been due to some beneficial effect of cabbage leaf application, or may have been secondary to reassurance and improved confidence and self-esteem in these mothers. The current available evidence suggests that cabbage leaf treatment helps reduce pain in breast engorgement and lengthens breastfeeding duration. Therefore this intervention should be promoted and recommended as an institutional policy and implemented as a routine care for all postnatal mothers having breast engorgement for reducing pain and severity.

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