

Efficacy of *Panchvalkaladi Oil* in the Management of Post-Operative Wound of Breast Abscess: A Single Case Study

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Case Report

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Abstract

Breast abscess occurs in child bearing women during 2-3 weeks of post natal period. The causes may be due to milk engorgement, feeding restriction, infection through duct (*Staphylococcus aureus*) and sometimes emotional stress. *Stana vidradhi* can be correlated with Breast abscess basis of symptoms likes tenderness and heaviness in the breast with pain and may also ulceration with thick or yellow pus with fever, thirst, low energy and reduced appetite. In Breast abscess soft tissue are involved and spread infections very fast. *Panchvalkaladi* oil is having *shodhan* (cleansing) and *ropan* (healing) properties and its oil form is being used in *Dusta Varna* (infected wound). After incision and drainage of breast abscess is infected so in this case *Panchvalkaladi* oil can be used for management of post operated wound.

Materials & Method: Patient taken from the *Shalyatantra* OPD of the I.P.G. T&R.A hospital, Jamnagar (Gujarat). 24 years old female patient who came with complains of non-healing wound of swelling and pus discharge (breast abscess operated) since last 1month. The measurement of wound was $O/E 6.8 \times 5.1 \times 5.3 \text{ cm}^3$. Wound was cleaned with Normal saline and *Panchvalkaladi* oil soaked gauze was packed in the wound daily once in morning for 8weeks. Along with local management the *Amrit kalash-2* tab BD and *Avaleha* of *Amrit kalash* one tea Spoon in morning time was continued during the treatment.

Result: After 1st week of dressing, wound became clean and healthy granulation tissue was observed. Wound contraction started after 5 days and wound size reduced remarkable $1 \times 1.3 \times 2.5 \text{ cm}^3$ on 6th week and relief all symptoms. Wound completely healed within 8 weeks.

Conclusion: A single case study concluded that *Panchvalkaladi oil* had healing potential in the management of post operated breast wound.

Keywords: Ayurveda; Breast Abscess; *Panchvalkaladi Oil*; *Stana Vidradhi*; *Vrana*; Wound

Introduction

A breast abscess is a painful infection brought on by bacteria. The type of bacteria that most frequently produces breast infection is *Staphylococcus aureus*. An abscess is a hollow space in the breast that becomes filled with Pus from the infected milk ducts. A breast abscess can develop in the presence of severe mastitis [1]. One cross sectional analysis of 89 patients with breast abscesses requiring surgical intervention found that 14% were lactational and 86% were non-lactational. In *Ayurveda* Breast abscess can be co-related with *Stana vidradhi* given by Acharya sushruta [2]. Herbal and herbo-mineral formulation are suggested for wound healing in *Ayurveda* with limited evidence. *Acharya Sushruta* explained 60 measures for the management of *Vrana* (wounds), which shows unique therapeutic approach for management of wounds in ancient time [3]. *Panchvalkaladi* oil indicated in infected wound.

Case Report

A 24 years old female patient visited in Shalyatantra OPD with complaints of non-healing wound of 6.8×5.1×

5.3cm³ lower quadrate right breast with complains of tenderness, slough, and inflamed edges since last 20 days. She had a history of breast abscess and she was under gone off I & D before 20 days in *Ayurveda* hospital. Antibiotic, antacid, and analgesic taken for 10 days as prescribed by surgeon. After that there was no improvement in healing of wound. So she came to IPGT & RA for further management.

Local Examination

A wound Site is lower quadrate right breast .In inspection seen that Edge and margin Irregular, Floor is cover with slough, Base is Indurate, Surrounding skin is inflamed and reddish. In palpation Regional Lymph node are not enlarged and palpable and tenderness also present. In wound foul odor is present. All routine investigation were done and found under normal limit, there HB was 10.8 %.FBS was 98mg/dl and PPBS was 120mg/dl.

Contain of Panchvalkaladi Oil: *Vata, Aswatta, Udumbara, Parish, Plaksha, Nisha, Kadli, Madhuk, Tvak, Sevya, Kustha, Chandana.* (Tables 1& 2) [4].

S.NO.	Name of Ingredient		Properties
	Sanskrit name	Latin name	
1	<i>Aswath</i>	<i>Ficus religoisa</i> linn.	<i>Varnya, vranropan, vedanasthapana, sothhar, raktasodhak</i>
2	<i>Vata</i>	<i>Ficus bengalensis</i> linn.	<i>vranropan, vedanasthapana, sothhar, raktasodhak, dahaprasamana</i>
3	<i>Udumber</i>	<i>Ficus glomerata</i> roxb.	<i>Varnya, vranropan, vedanasthapana, sothhar,</i>
4	<i>Parish</i>	<i>Thespesia populenea</i> soland.	<i>Kaphpittasamak, santhaniya, sothhar, kustahar</i>
5	<i>Plaksha</i>	<i>Ficus lacor</i> buch.	<i>Raktastrave, sthabhana, sothhar, visrapahar, vranya</i>
6	<i>Nisha</i>	<i>Curcuma longa</i> .linn	<i>Sothhar, vedanasthapana ,Varnya, kusthaghana, vranasodhana, vranropan, lekhana</i>
7	<i>Madhuka</i>	<i>Glycyrrhiza glabra</i> .linn	<i>Dahsamak, kesya, vedanasthapana , sothhar</i>
8	<i>Tvak</i>	<i>Cinnamomnm zeylanicum</i> breyn.	<i>Raktautakleshaka, uttejaka, vedanasthapana, Lekhana</i>
9	<i>Sevya</i>	<i>Vetiveria zizanioidis</i> linn.	<i>Dahaprasamana, tvagdoshahar ,vrnya, swedanayan</i>
10	<i>Kustha</i>	<i>Saussurea lappa</i> Clarke.	<i>Durgandhanasana, jantughana, vedanasthapana ,vranya, kusthaghana</i>
11	<i>Chandana</i>	<i>Pterocarpus santalinus</i> linn.	<i>Dahsamak, sthabhana, sothhar, tvagdoshahar</i>
12	<i>Kadli</i>	<i>Musa acuminata</i>	

Table1: Ingredient of *panchvalkaladi* oil.

<i>Kwatha dravyas</i>	Part used	<i>Kalka dravyas</i>	Part used
<i>Vata</i>	<i>Tvak</i>	<i>Nisha</i>	<i>Mool</i>
<i>Parish</i>	<i>Tvak</i>	<i>Kadli</i>	<i>Patra</i>
<i>Aswatta</i>	<i>Tvak</i>	<i>Madhuk</i>	<i>Tvak</i>
<i>Udumbara</i>	<i>Tvak</i>	<i>Tvak</i>	<i>Tvak</i>
<i>Plaksha</i>	<i>Tvak</i>	<i>Sevya</i>	<i>Tvak</i>
		<i>Kustha</i>	<i>Tvak</i>
		<i>Chandana</i>	<i>Tvak</i>

Table 2: Ingredients of *Panchvalkaladi* Oil.

Panchvalkaladi Oil Preparation [5]

Kwatha was prepared by taking 8 times of water to *kwathya dravyas* and reducing up to $\frac{1}{4}$ th part. It was filtered through cotton cloth. *Tila taila* was taken in stainless steel vessels and placed over mild heat. When fumed started appear *kalka* was added. Soon after *kwatha* was added in to it and boiled with frequent stirring, maintaining mild temperature. *Paka* was continued till *sneha paka lakshana* were appeared. Then, it was filtered in warm condition through cotton cloth and allowed for self-cooling .Lastly it was stored in airtight container.

Observation & Results

Patient was treated with local application of *Panchvalkaladi* oil daily and observed for improvement at regular intervals. The wound was cleaned with normal saline and surrounding area with Betadine solution and

Panchvalkaladi oil was applied on wound in sufficient quantity then wound was covered with sterile gauze and bandaged with micropore. Changes in symptoms tenderness, color, inflammation, slough, size of wound, etc. observed, after 7th days of the application of oil the slough from the wound got removed by itself, inflammation of edges and redness also decreased, sized wound remained 4.5×4.0×3.5 cm³. There was fresh granulation tissue at base without any swelling, redness, slough. After 15th days, fresh contracting white margins appeared as a sign of wound healing. The wound base filling with vascularized tissues and healthy granulation seen on the wound surface. After the 30th days of treatment wound sized was 2.2×2.0×2.5 cm. Tablet *mahrashi amrita kalash* BD for 30 days was prescribed and *mahrashi amrita kalash Avaleha* 50 gm at morning with warm water taken for 30 days. After 45 days of *Panchvalkaladi* Oil dressing wound was completely healed (Figure 1).



Discussion

- **Vata:** Sushruta Samhita a decoction of the fruits is recommended for washing of wound for quick healing, Fruit extract exhibited significant antibacterial activity [6].
- **Yastimadhu:** Sushruta Samhita promoting growth of healthy tissue after surgery and promoting oadhesion of operated tissues.Glycyrrhizinic acid show in vitro antimicrobial action again staphylo coccus, myobactrium etc [7] . Glycyrrhizin proved to be used

adjuant drug in the treatment of severe fungal infection [8]. Flavonoids liquiritin & genin liquiritigenin also display anti inflammatory action [9].

- **Chandana:** As per *Sushruta Samhita* wood preparation are useful in treatment of wound,burn,nonn-healing ulcer ,Sandal wood oil inhibition of replication of herpes simple virus 1 and 2 [10].
- **Kushtha:** Ethanol extract of roots show anti-inflammatory and anti-arthritis activity [11].
- **Curcuma longa:** *Sushruta Samhita* is used for cleaning and sterilizing the interior of an ulcer. Curcuminoids

and the essential oil, display useful anti-inflammatory action [12]. Curcuminoids exhibit antimicrobial activity, essential oil has significant antibacterial action against gram-positive and gram negative bacteria and anti-fungal against yeasts [13].

- Musa acuminata: The Methanol extract of Musa acuminata bract showed good pharmacological activity against gram-positive and gram negative bacteria [14].

Panchvalkal Rasa Panchak and its Activity [15]

RASA: Considering the mode of action by the *Rasa*, *Panchvalakal* must have been *Vatakara* and hence increase the *Ruja* (pain) which is predominantly due to *Vata*. But the effect of the drug on *Ruja* is found to be highly significant. This might be due to the action of the *Guna* (Property). Having *Guru* (heavy) *Guna* it is supposed to be *Vatahara* and thus might have decreased the *Ruja*.

Panchvalakal is a drug with *Kashaya Rasa* (astringent taste) and by the action of the *Rasa*; it acts as a *Stambhaka* (arresting) and *Grahi* (that holds). It also must be *Atitwak Prasadaka* (cleanses the skin and removes all the dirt from here). Due to all these properties, it must have reduced the *Strava* (discharge). The drug is *Rooksha* (dry) and *Kaphahara*. Moreover the *Lekhana* (scraping), *Kledahara* (arresting Dampness), *Chedana* (destroying/removing) and *Raktashodhaka* (blood purifier) properties of *Kashaya Rasa* also will facilitate the debridement of the slough.

In case of *Panchvalakal*, which is considered to be good *Shothahara* (that which reduces swelling), due to the *Kashaya Rasa* of the drug it acts with *Peedana* (act of squeezing), *Ropan* (heal) and *Shodhana* (curative effect) property. Due to these properties, it destroys or liquefies the accumulated substances and hence minimizes the swelling.

Veerya

The *Stambhan* effect might also be attributed to the *Sheeta Veerya* (cold in potency) of the drugs. *Panchvalakal* are considered to be *Pittaghna*, that is both by the action of *Rasa* (taste) and *Veerya* (potency) they are *Pittahara* and therefore they must decrease the *Raga* (redness), which is mainly due to *Pitta*.

Conclusion

A single case study concluded that *Panchvalkaladi* oil has potential in the management of big size wound. This observation needs to be studied in more patients to explore better options for non-healing wound too.

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