

Wound healing activity of *Thumari* oil (*Securinega leucopyrus*) in the management of *Stanagatvrana* (Breast wound) – A single case study

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Abstract:

Stana Vidradhi is described by *Aacharya Sushruta* in *Nidana sthana* 10th chapter and *Bhedan Chikitsa*. *Stana Vidradhi* can be co-related with breast abscess which is commonly seen in lactating women. Bacteria enter the breast during baby sucking through the cracked nipple and breast abscess occurs. *Thumari* is used in rural area for boils, wound and cuts which is mentioned in textbook plants of Saurashtra. In this case study, a 21 years lactating female patient was diagnosed as a left side breast abscess. So under short GA incision, drainage and debridement of necrosed tissue was done. A big post operative wound (12cm x 13cm x 6cm) was created due to excision of involved large breast tissue. Wound was painful (VAS-6) pus discharge with unhealthy tissue. So it was treated with local application of conventional medicament but not responding. So regular dressing was started with innovative *Ayurved* formulation *Thumari* oil once in day for 2 months. In first week after of dressing started with *Thumari* oil patient reported relief in pain (VAS-2) was found without analgesics. So dressing continue with *Thumari* oil and on 2nd week all slough and necrosed tissue was slough out and wound became clean with healthy granulation tissue. Wound contraction was started after 3rd week and wound reduced remarkable (4cm x 5cm x 1cm) on sixth week. Finally wound was healed completely after 2 month with minimum scar. The additional property of this oil is *Savarnikaran* (normal skin texture). Study concluded that post operative big breast wound can be managed with local application of *Thumari* oil (*Securinega leucopyrus*).

Keywords: Ayurveda, Breast abscess, *Securinega leucopyrus*, *Stana vidradhi*, *Thumari* Wound.

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Introduction:

Acharya Sushruta described *Stanaroga* & its management in *Nidan Sthana* 10th chapter. ^[1] Breast abscess occurs during pregnancy or in breast feeding mothers which is also mentioned by *Aacharya Sushruta*. ^[2] *Doshas* vitiated due to their specific causes and reaches to the breast, specially in the dilated *Siras* of breasts of lactating or non-lactating woman, vitiated *Rakta* and *Mamsa* produce hard swelling characterised with features of five types of external abscesses. *Acharya Dalhan* says that non- lactating and lactating words refer to pregnant and delivered woman respectively. When incisor teeth are developed in baby due to teeth injury during sucking, minor ulceration occur in the breast, this result in breast abscess. It is mostly due to staphylococci and streptococci infection. ^[3] *Aacharya Shusruta* mentioned *Shastra Karma* in *Stana vidradhi*. In modern era also incision and drainage is mentioned in treatment of breast abscess.

Thumari is used in rural area for cuts, boils and wounds. It is mentioned in plants of Saurashtra. This plant is similar to the *Katupila* (Sri-Lanka) which was found effective in diabetic wound at PG level research. ^[4] It has been identified and described the drug in illustration of the forest flora of north-west and central India. It is also mentioned that this plant is found in the secondary forest situation in Sri-Lanka. ^[5] Flora of Saurashtra in Gujarat India, here, the plant is described under the name *Securinega leucopyrus* (wild) with local name as "Humari" mentioned with

some references in text. ^[6] The extract of *Securinega leucopyrus* was found to be highly effective against all organisms such as Gram positive, Gram negative and single fungal strain. *Katupila* reported as a medicinal plant in different research papers on wound healing potential. ^[7]

Case Report:

A 21 years lactating female patient came in OPD of Shalya tantra, IPGT & RA, hospital Jamnagar with complaints of pain in left breast, feeling hard swelling and burning with redness at left breast for 5 days. Pain was very severe though patient could not able to move her hand also. Recurrence of fever was also present. On examination there was redness, tenderness, hard swelling and local temperature increased in left breast (Fig-1). She was diagnosed as left Breast abscess. So, under short GA incision, drainage and debridement of necrosed tissue was done after admitted in IPD female ward. A big post operative wound (13cm x 12cm x 6cm) was created due to excision of large involved breast tissue. Wound was painful (VAS-6), pus discharge present with unhealthy tissue. Local conventional dressing was done with antiseptic along with antibiotics and analgesic but not responding. So wound was cleaned with normal saline and dressing with *Thumari* oil was done once a day for 2 months.

Preparation of thumari oil: The oil was prepared with sesame oil base as per classical *Snehapaka Kalpana* API in which til taila, kalka of thumari leaves and kwath of thumari leaves were taken in the ration of 1:4:16 respectively. ^[8]

Fig-1: Breast abscess: **Fig-2 to 8:** Post operative progress, **Fig-9:** healed wound scar**Pre-Operative Breast abscess****Post-Operative after I & D****Wound status after 1 Week****Wound status after 2 Weeks****Wound status after 3 Weeks****Wound status after 4 Weeks****Wound status after 5 Weeks****Wound status after 6 Weeks****Wound status after 8 Weeks****Result & Discussion:**

The relief in wound status was weekly observed. After the 1st week of *Thumari* oil dressing, patient reported relief in pain (VAS-2) without analgesics. On 2nd week, all slough and necrosed tissue was sloughed out and wound became clean

with healthy granulation tissue that indicates *Shodhan* and *Lekhan* property of *Thumari* oil.

The drug has *Sandhankara* properties means it helps in wound contraction, *Shodhan* which helps in purification of wound. *Ropan* property that helps in

healing, and *Stambhana* properties which helped to stop discharge from the wound. *Tikta rasa* also having *Lekhan*, *Shoshhana* properties dries up the pus, surface study shows anamocytic stomata. Stem section and its powder show the presence of calcium oxalate crystals, large amount of tannin and oil helpful in the treatment of cuts and wound. ^[9] The *Thumari* is having scavenges off the free radicals, but also inhibits the generation of free radicals antibacterial, ^[10] anti-inflammatory and immune-modulatory activities ^[11] These properties are responsible for proper healing of the wound and helpful to promote healthy granulations tissues.

Wound contraction was started after 3rd week and wound reduced remarkable (5cm x 4cm x 1cm) on sixth week that indicates *Ropan* property of *Thumari* oil. (Fig-2-8) Finally wound was healed completely after 2 months with very minimal scar that indicates *Savarnikaran* property of *Thumari* oil (Fig-9).

Conclusion:

This case study concluded that *Thumari* oil (*Securinega leucopyrus*) possesses *Shodhan*, *Ropan*, *Lekhan* and *Savarnikaran* properties and had potential to heal big post operative wounds.

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