

EFFECT OF KSHEERBALA TAILA IN THE MANAGEMENT OF VATA VYADHI-A REVIEW ARTICLE

Anshu Sharma¹, Avadhesh Kumar Bhatt², Kapil Sharma³

¹M.D. Scholar, Department of Ras Shastra & Bhaishajya Kalpana, M.M.M. Govt. Ayu. College, Udaipur (Raj.)- 313001, India

²Professor & Head of Department, Ras Shastra & Bhaishajya Kalpana, M.M.M. Govt. Ayu. College, Udaipur (Raj.)- 313001, India

³Assistant Professor, Department of Panchkarma, Sri Ganganagar College of Ayurvedic science and Hospital, Sri Ganganagar- 335001, India

Email: anshus579@gmail.com

ABSTRACT

A huge number of drugs have been prescribed by *Ayurveda* physicians to the patients of *VataVyadhi* and number of preparations is traditionally used by different school of practitioners, since thousands of years. Among them *KsheerbalaTaila* has been advocated in *SahasraYogam* (A popular book of *Ayurveda* treatment) and is being practiced since 200 years to treat *VataVyadhi*. Though principally its mode of action is well established as per *Ayurveda* parameters, it is a need of time to establish this on the basis of modern biochemical and pharmacological parameters. **Methods:** We searched Pubmed and scholarly articles with the help of Google search engine to see that is there any kind of alkaloid present in any drug of this combination which shows their anti-inflammatory and analgesic effect. For this, each drug of this combination is studied separately on the basis of previous researches especially animal experiments and data is gathered. **Result and Conclusion:** Hence, *KsheerbalaTaila* has an effect on property which can be very helpful for *VataVyadhi*.

Keywords: *VataVyadhi, KsheerbalaTaila, SahasraYogam*

INTRODUCTION

The term '*VataVyadhi*' is a compound form. It may be interpreted in two different ways as follows:

1) *VataVyadhi*, i.e. itself is the disease. By implication, the aggravated *Vata* itself after afflicting the concerned *Dushya* (tissue elements) pervades the entire body or a part of it to give rise to different types of pain for which the ailment is called *VataVyadhi* (*Vata* disease) and

2) *VataVyadhi* or the disease caused by *Vata*. By implication, other *Dosha* and *Dushya* (tissue elements) are vitiated in a special way by *Vata* to produce diseases in the entire body or in a part of it which is called *VataVyadhi* (*Vata* disease).

Vata possesses the qualities of Dryness, Coldness, Lightness, Clearness, Motion, Invisibility and Instability. And when these are affected, it causes sublimation, dislocation, contraction, attraction, laxation, tremor,

circular movement, motion, pricking pain, coarseness, harshness, dehydration, aching pain, numbness, contractions, rigidity etc. seeing the association of these syndrome one should diagnose the condition as *Vata* disorder.

KsheerbalaTaila is one of the most popular oil preparations in *Ayurveda* and recognized as a very effective remedy for being used in the treatment of all the *VataVyadhi* including *Pakshaghata* / *Pakshavadha* (Paralysis / Hemiplegia / Paraplegia), *Ardita* (Facial Paralysis / Bell's Palsy), *SandhigataVata* (Osteoarthritis), *Katishoola* / *Katigraha* (Low back pain / Low

back discomfort / Lumbago) and many other wide array of problems. It is available in the form of medicated oil used for both internal as well as external application. The similar preparation has been mentioned by almost all ancient *Ayurveda* texts but with different names. *Acharya Charaka* mentioned as *Shatasahasra PakaBalaTaila*. *Sushruta* mentioned as *ShataPakaBalaTaila* and *AshtangaHridaya* mentioned as *ShataPaka-SahasraPakaBalaTaila*. The ingredients of this preparation are *Ksheera* (Cow's milk), *Bala* (*Sidacordifolia* Linn.) and *TilaTaila* (Sesame oil).

MATERIALS AND METHODS:-

CONTENTS OF KSHEERBALATAILA¹

S. No.	Sanskrit Name	Botanical Name	Proportion
1.	<i>Bala</i>	(<i>Sidacordifolia</i> Linn)	1 part
2.	<i>TilaTaila</i>	(Sesame oil)	4 parts
3.	<i>Ksheera</i>	(Cow's milk)	16 parts

GENERAL METHOD OF SNEHAPAKA (OIL) PREPARATION

Snehapakaprocess may be divided into three phases:-

1. *SnehaMurchhana*
2. *Snehapaka*
3. *PakaSiddhi*

➤ *SnehaMurchhana*²-

Objectives:-

Murchhana may be performed to achieve the following objectives.

- ❖ *Amadosharatwa*- removal of 'Ama' which can be correlated to the 'moisture content' which can be directly related to rancidity problems.
- ❖ Removal of bad odour of crude oil.
- ❖ Oil will acquire the capability to receive more active principles.
- ❖ Impart appealing color to the *Taila*.
- ❖ Alter the solubility and absorption of the finished product.

➤ *Snehapaka*³-

A. *SnehaDravya*-

The *Sneha* using in the preparation should be free from rancidity. As the general principle of *SnehaKal-*

pana, these *SnehaDravya* are indicated to take four times to the amount of *Kalka Dravya* (Paste).

B. *Kalka Dravya* (Paste)-

By pounding the drug or drugs with juice or any liquid into a soft and bolus form is known as *Kalka*. *Kalka* is prepared by finely grinding the drug in a mortar (stone), when fresh herbs are used. For dry drugs, four times of water or liquid or milk to be added to make paste.

➤ *Paka Siddhi*-

1. *VartivataSnehkalkaha*- *SnehaKalka* attains 'perfect wick shape' when rolled between thumb and index finger.
2. *YadanguliyaVimarditaha*- If a part of *SnehaKalka* is put into fire, no sound is produced indicating the 'loss of moisture' in it.
3. *PhenodgamastalePhenshantishchSarpishi*-Foam appears in '*TailaPaka*' and it disappears in '*Ghrita Paka*' during completion of preparation.
4. *Gandhvarnarasotpatti*- Desired color, odour and taste of the ingredients become appreciable as the preparation is properly done.

Flow chart of general method of preparation of oil:-

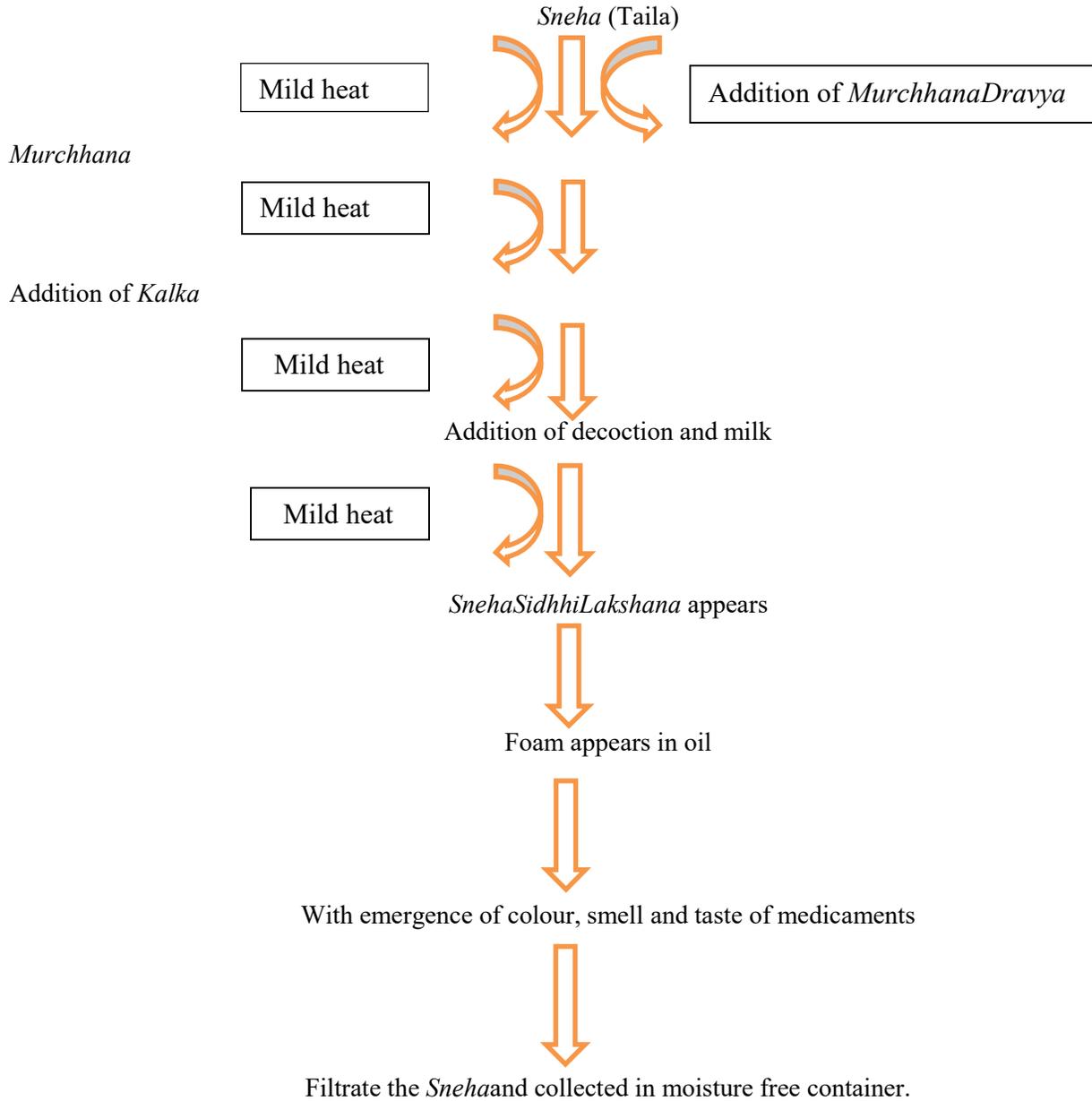


Table 1: Rasa Panchaka of Ksheerabala Taila Dravya

S.No.	Dravya	Rasa	Guna	Virya	Vipaka	Doshakarma
1.	Bala	Madhura	Laghu, Snigdha, Picchila	Sheeta	Madhura	Kapha-Vata Shamaka
2.	Ksheera ⁴	Madhura	Guru, Mridu, Snigdha, Sandra, Slaksna	Sheeta	Madhura	Vata-Pittahara
3.	Taila ⁵	Madhura Anurasa- Kashaya	Snigdha, Guru, Sukshma, Vyavayi, Vishada, Sara, Vikashi	Ushna	Madhura	Vatahara

Table 2: Analysis of *KsheerabalaTailaDravya*

S.No.	Dravya	Karma	Therapeutic action	Pharmacological action
1.	Bala	Balya, Brihana, Shothahara ⁶	Daurbalya, Pradar, Aardita, Pakshaghaat	Anti-inflammatory, Analgesic ⁷
2.	Ksheera	Rasayana, Tarpaka, Jivaniya, Hridaya, Buddhi Prabodhaka	Jirnajwara, Shosha, Grahni, Pandu, Daha, Trishna, Gulma, Raktapitta, Atisaara ⁸	Immunity-modulator, Anti-inflammatory, Stimulate growth
3.	Taila	Balya, Deepana, Sandhaniya, Snehana	Agnidagdha, Krimi, Pakshaghata, Shoola, Vatavikara	Anti-oxidant, Antibacterial, Analgesic, Immunity-modulator, Laxative

PREVIOUS WORK DONE:**Evaluation of anti-inflammatory and analgesic property of *Sidacordifolia*-**

- In 1999, it was disclosed that the extract of *Sidacordifolia* leaves, which was proved to be anti-inflammatory, analgesic and hypoglycaemic, augments insulin release after its administration. Kanth and Diwan also demonstrated that *S. cordifolia* can increase pain tolerance and appears to have anti-inflammatory properties. (Kanth et al., 1999) When rats were exposed to heat, rats that consumed *Sidacordifolia* had a greater heat tolerance. V Ravi Kant tested Acetic acid induced writhing test method on Analgesic activities. The number of writhing episodes of eight groups of six animals was compared with those of aspirin. At a 600 mg/kg dose both *S. cordifolia* root and aerial extract exhibited significantly ($p < 0.001$) better activity than that elicited by aspirin. He also evaluated the latency time for licking of legs and jumping responses after exposure on the hot plate surface. Increase of latency time in relation to the control was taken as an index of analgesic activity⁹.
- Diwan and Kulkarni studied anti-inflammatory activity of ethyl acetate and alcohol extracts of *S. cordifolia* was studied in rats. The percent inhibition of oedema was calculated with reference to the control group. The aerial part exhibited significant anti-inflammatory activity only at a dose level of 600 mg/kg. Both *Sidacordifolia* aerial and root extract showed dose dependent activity (Diwan et al., 1983)¹⁰.
- Phytopharmacological evaluation of ethanol extracts of *Sidacordifolia* L. roots. Analgesic activity of the extract was tested using the model of acetic acid induced writhing in mice. Diclofenac sodium is used as reference standard drug for the analgesic activity test¹¹.
- Franzotti EM *et al.*, 2000 investigated aqueous extracts of *Sidacordifolia* against anti-inflammatory, analgesic and acute toxicity effects in rats. The aqueous extract also increased the latency period of mice in the hot plate method and inhibited a number of writhes produced by acetic acid at the oral dose of 400 mg/kg.¹²
- Gunatilaka AAL *et al.* reported that the water extracts of the leaves possess analgesic and anti-inflammatory activities in animal models¹³.
- Recently, Swathy SS *et al.*, 2010 studied the effect of ethanolic extract of *Sidacordifolia* roots on quinolinic acid induced neurotoxicity and its effects were compared with standard drug diphenyl in rat brain. Cyclooxygenase and lipoxygenase are the markers of inflammatory responses which were increased in the quinolinic acid treated rats and this was decreased upon administration of plant extract and diphenyl¹⁴.
- Shailender *et al.*, 2011 conducted a study to screen the ethanolic extract of *Sidacordifolia* for acute and sub-acute anti-inflammatory effects. *Sidacordifolia* L showed acute inflammatory activity and it was found to be 48.83% with a concentration of 100mg/kg of extract and for 200 mg/kg of extract 53.48% was observed. The ability to inhibit the increase number of fibroblast and

synthesis of collagen and mucopolysaccharides during granuloma tissue formation indicates the efficiency of anti-inflammatory agents in sub-acute inflammatory states. *Sidacordifolia* Linn showed significant ($p < 0.05$) anti-inflammatory activity by reducing granulomatous tissue in cotton pellet granuloma method and thus found to be effective in sub-acute inflammatory conditions¹⁵.

- Ternikar *et al.*, 2010 investigated anti-inflammatory activity from the seed oil of *Sidacordifolia* and it showed a significant activity at a dose of 400 mg/kg body weight¹⁶.
- RanajithKumar Sutradhar *et al.*, 2006 reported analgesic and anti-inflammatory activities of a new alkaloid (5' - hydroxymethyl -1'- (1, 2, 3, 9 - tetrahydro - pyrrolo) [2, 1- b] quinazolin -1- yl) - heptan - 1 - one) (compound1) isolated from *Sidacordifolia* was investigated in rats. The analgesic activity of compound1 was determined by acetic acid induced writhing inhibition method and the result showed a significant reduction. The anti-inflammatory activity was studied using carrageenan induced rat paw edema and the alkaloid produced significant ($p < 0.01$) activity. These results indicated that compound1 possessed analgesic and anti-inflammatory activities¹⁷.
- Konate k *et al.*, 2012 conducted a study on aqueous extracts of *Sidaacuta* and *Sidacordifolia* for toxicity and analgesic activity. The extracts were administered intraperitoneally at a dose of 6 mg/kg for 14 days. It was analyzed for analgesic properties using writhing which was induced by acetic acid on mice. The extracts produced significant inhibition by acetic acid. Thus the result showed that *Sidacordifolia* produced high inhibition values when compared to extracts of *Sidaacuta*. Similarly, for formalin induced nociception the extracts of *Sidacordifolia* produced higher inhibition than *Sida acuta*¹⁸.

Evaluation of analgesic and immunity booster properties of *TilaTaila*-

Alkaloids present in sesame oil are central nervous system stimulants, topical anaesthetics in ophthalmology & powerful pain relievers. Saponins present in it are anti-oxidant, anti cancer & immunity booster¹⁹.

RESULT AND DISCUSSION

The aggravated *Vayu* produces specific Contraction, stiffness of joints and pain in the bones as well as in joints, Twitching sensation and numbness in the body, delirium and spasticity of hands, Atrophy of limbs, insomnia, pricking pain, similar other signs and symptoms etc. Neuromuscular disorders are major problem of today's scenario. In modern science there is no permanent treatment with NSAIDS and Analgesics. In *Ayurveda* oil is the best treatment for *VataVyadhi*. In different types of oils *KsheerbalaTaila* can be used for local application, orally or in medicated enema. *KsheerbalaTaila* is also available in various potencies they are called *Avarti* or *Avrutti*. The number opposite to *KsheerbalaTaila* indicates the number of times the oil is fortified or processed. The more the fortification number against the name of the oil, the more effective it is in eradicating the diseases and disorders. The *Avarti* available are 3, 7, 14, 21, 41, 101. In *Ksheerbala Taila*, *Balahas Balya*, *Brihana*, *Shothahara* qualities with analgesic and anti-inflammatory effects which are been proved by many animal studies also. *Ksheera* has *Rasayana* effect and *TilaTaila* has analgesic, immunity booster effect and it has *Balya*, *Saithyakar*, *UshnaGuna* and is best in mitigating *VataDoshha*. The above properties made it effective in *VataVyadhi*.

CONCLUSION

According to all above discussion and previous studies *KsheerbalaTaila* is efficient to decrease inflammation and pain. Hence it is concluded that *KsheerbalaTaila* is useful in *VataVyadhi*.

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