

ROLE OF *TUTTHAKADI VARTI* IN *VRANA SHODHAN W.S.R. TO NADIVRANA, BHAGANDAR* – A REVIEW

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ABSTRACT

**Introduction :** *Varti Kalpana* is included in *Ayurveda* for internal & external use. Different types of *Vartis* are mentioned in different therapeutic conditions , Out of these , *Vrana varti* is used in different forms of wounds. In *Sushruta* , *Varti Kalpana* is mentioned under the heading of *Shashtiupakrama* in *Dvivraniya Chikitsa*. According to Classical text, *Nadivrana* comes under *Dushta vrana* because of its non healing nature. As per modern medicine, *Nadivrana* and *Bhagandar* could be correlate with fistula. Surgical intervention includes wide excision and takes much time for secondary healing and high chances of recurrence. There are different interventions are mentioned in ayurvedic text for the treatment of *Dushta Vrana* or *Nadivrana* like *Ksharsutra* and use of *varties*. In some conditions of *Nadivrana*, use of *Varti* shows good results as well easy to use. One of very important formulation which is in use for treatment of *Nadivrana* is *Tutthakadi Varti* mentioned in *Rasatarangini* a 19<sup>th</sup> century text. **Aims & Objectives :** An present attempt has been made to evaluate pharmacological activity of Herbomineral formulation of *Tutthakadi Varti* in *Nadivrana* & *Bhagandar*. It will provide information about therapeutic efficacy of the formulation on *Vrana Shodhana*. **Materials & Methods :** Detailed study of *Vartis* , *Nadivrana* & *Bhagandar* done from classical text, Research published Research articles, pharmacological properties of drugs included in *varti* studied from particular texts as well as modern texts was noted . **Result :** Most Ingredients have *Tikta* , *Kashay* , *Madhur Rasa* predominantly. *Veerya* of Some ingredients are *Ushna* (*Kushtha*, *Haritaki*, *Bibhitaki*, *Darvi*, *Dantimool*, *Trivrutta*, *Til*, whereas *Amalaki*, *Nimbu* And *Pippali* having, *Sheeta*, *Anushna* *Anushn Saheeta*, *Sheet Virya*. Most of the ingredients possess *Katu* and *Madhura Vipaka*. **Conclusion :** As it shows *Shothahar*, *Vranashodhan* , *Vranaropan* & *Dushtastravahar* effect locally . Also Pharmacological Activities of the ingredients of the *Tutthakadi Varti* has shown its use as Anti- inflammatory, Anti- Bacterial, Anti- Fungal and Anti- Oxidant. It also shows Antimicrobial, Anti Diabetic properties .So This Review helps the Researcher to explore this formulation for more pharmacological activities of the *Tutthakadi Varti*.

**Keywords :** *Tutthakadi Varti* , *Nadivrana* , *Bhagandar*, *Vrana* , *Varti kalpana*.

**INTRODUCTION :** *Vartis* are mentioned in *Ayurved Samhita's* like *Vrana Varti*, *Netra Varti*, *Dhuma Varti* , *Yoni Varti*, *Guda Varti*, etc. *Varti* also called as suppository and are wick shaped (medicated wicks) with elongated tapering ends<sup>[1]</sup>. Suppositories are slight modification of this formulation . Ancient

& Modern literatures have advocated similar shapes & nearly same routes for administration of *Vartis* (Except *Vrana Varti*). *Vrana* can occur in any part of the body and usually it is too much painful. *Acharya Sushruta* indicated *Varti kalpana* in *Chikitsa Sthana* in *Pratham Adhyay* named *Dvivraniya Chikitsa* under the

heading *Shashtiupkrama* for the treatment of *Vrana*<sup>[2]</sup>. Different types *Nadivrana* is treated as sinus, a blind tract leading from surface down into the tissue and lined by granulation tissue or epithelium and persists due to presence of foreign body, non dependent drainage and infection. According to Classical text, *Nadivrana* comes under *Dushta vrana* because of its non healing nature. According to *Sushruta*, *Bhagandar* is a condition which is developed from bursting of painful and suppurated *Pidika* within the two *angula* of *Guda Pradesh* and it is a disease which causes tear or discontinuity in the region of *Bhaga*, *Vasti* and *Guda* associated with suppuration<sup>[3]</sup>. They also mentioned another unique form of *varti* as *Vrana Varti* to be used in different type of *vrana* or *vrana* tract produced due *Bhagandar* (Fistula in ano) and *Nadivrana*, meant for insertion into *Vranas* for the purpose of their cleaning, drainage & cauterization (i.e. *Shodhana*, *Ropana*, *Stravaharana*, *Vednaharan* & *dahakarma*) e.g. *Aragvadhadi Varti*<sup>[4]</sup> used in *Bhagandar*, *Nadivrana nashak Varti*<sup>[5]</sup> in *Nadivrana*. *Ropana Varti* (Healing Wicks) mentioned in *Sushrut Samhita's*, *Dvivraniya Chikitsa Adhyay* to clear wounds with mild pain or without pain and also present in deep *dhatu*<sup>[6]</sup>. As suppositories melt and exert local or systemic effects<sup>[7]</sup>. They are used to deliver both systemically and locally acting medications. After insertion, They will either melt or dissolve into the cavity fluids to release medicaments and exert their drug effects. According to *Charak*, a painful and suppurated *pidika* in the region of *Guda*, On bursting leads to *Bhagandar*<sup>[8]</sup>. *Acharya Vagbhata* has described that a *Vrana* in the size of *pidika* forms at an *Angula* or two from the anus or inside the anus. *Rakta and Mamsa* are narrated as

*dushya* resulting into Sinus with the discharge of pus in the region of anus, perineum & bladder<sup>[9]</sup>. As Modern surgery employs wide excision and depends on secondary healing for the treatment of sinus which is time consuming cause uneasiness to the patient and with high chance of recurrence. Hence, there is a need for the alternative or innovative techniques for the management of this challenging diseases, so as to minimize recurrence, make it cost effective, with improved acceptability and minimum hospitalization. So Ayurvedic conservation method was chosen for the treatment of *Nadi Vrana*. *Varti* insertion minimizes rates of complication and recurrence and acceptable treatment to the patient in terms of cost of treatment, Extent of discomfort. An attempt to review the Pharmacological Potential of *Tuthhakadi Varti* in *Nadivrana* and *Bhagandar* along with pharmacological activities of each ingredient in formulation. In my topic, *Tuthha* is the chief ingredient called as *Blue Vitriol*, mineral drug of *Maharasa* group possess deep bluish colour *guru*, *snigdha*, *tikta rasa* reduces *kapha* and *Vrana Dosha* described in the treatment of various diseases like *kushtha*, *Putigandhita vrana*, *Phirangaja vrana*, *Arsha*, etc<sup>[10]</sup>.

## Methods of Preparation of Tuthhakadi Varti<sup>[11]</sup>

### Ingredients :

- |  |                 |   |      |
|--|-----------------|---|------|
| 1) <i>Sudhha</i>                       | <i>Tuthha</i> - | 1 | part |
| 2) <i>Kushtha(kuth)</i>                | -               | 1 | part |
| 3) <i>Vara</i> ( <i>Trifala</i> )      | -               | 1 | part |
| 4) <i>Darvi</i> ( <i>Daruharidra</i> ) | -               | 1 | part |
| 5) <i>Dantimool</i> -                  |                 | 1 | part |
| 6) <i>Trivrutta</i> -                  |                 | 1 | part |
| 7) <i>Tila</i>                         | -               | 1 | part |
| 8) <i>kana( Pippali)</i>               | -               | 1 | part |

- 9) *Saindhav* – 1 part  
 10) *Madhu* - 1part  
 11) *Nimbu Swaras* – as required

Powders of above herbs (from 1 to 9 no.) taken in equal quantity added with *Madhu* and this mixture is

trituated well with *Nimbu Swaras* in Mortar and Pestle continuously for even distribution of all ingredients. After proper trituration, it is moulded in *Varti* (Pore) by hand.

**Table no 1 Ingredients of Tutthakadi Varti and their Pharmacological and therapeutics properties.**

| S<br>n<br>o | Sanskrit name   | Botanical Name & Family   | Part used | Ayurvedic properties   | Pharmacological properties   |
|-------------|-----------------|---|-----------|--|--|
| 1.          | <i>Tuttha</i>   | <b>Chemical Name-</b><br>CuSO <sub>4</sub> [9]<br>-Blue Vitriol<br>- <i>Tutthanjana</i> |           | <i>Titka Rasa ,Kaphashamak Roghanata&amp; karma Upadanshaj &amp; Firangaja Vrana, Pothaki, Klinnavartma, Twachya, Ksharkarmahar</i> <sup>[12]</sup>  | Anti-Bacterial <sup>[13]</sup> , Antimicrobial <sup>[14]</sup> .   |
| 2.          | <i>Kushtha</i>  | <b>B.N.-</b><br>Sasurrea<br>Lappa<br><b>Family-</b><br>Compositae                       | Root      | <i>Tikta, Katu, Madhur rasa Guna- Laghu, Ruksha, Tikshna Virya- Ushna Vipaka- Katu Doshagnata- KaphaVataghna Rogagnata- Durghandhanashan, jantughna, vednasthapan, jin dushtha vrana for vranakarma &amp; dhupana, Varnya in vrana</i> <sup>[15]</sup> | Anti-inflammatory <sup>[16]</sup> , Antimicrobial <sup>[17]</sup>  |
| 3.          | <i>Haritaki</i> | <b>B.N.-</b><br>Terminalia<br>Chebula<br>Retz.<br><b>Family-</b><br>Combretaceae        | Fruit     | <i>Rasa-Kashay , Tikta, Madhur , Katu , Amla Guna- Laghu, Ruksha Virya- Ushna Vipaka- Madhur Prabhava- Tridoshshamaka specially Vatashamaka Rogagnata- Vatavyadhi, Shotha- Vedanayuktavikara, Agnimandya, Shool, Arsha,</i>                            | Wound healing activity <sup>[19]</sup> , Antibacterial <sup>[20]</sup> , Antifungal, Hypolipidemic, Purgative. |

|    |                                |   |   |   |  |
|----|--------------------------------|---|---|---|--|
|    |                                |   |   | <i>Krimiroga.</i><br><b>Karma-</b> <i>Vednasthapana,</i><br><i>Hridya,</i> <i>Kaphaghna,</i><br><i>Srotaha- Shodhana,</i> <sup>[18]</sup> .   |  |
| 4. | <b>Bibhitaki</b>               | B.N.-<br>Terminalia<br>bellirica(Gaer<br>tn)Roxb.<br>Family-<br>Combetaceae | Fruit<br>Seed<br>Bark                                     | <b>Rasa-</b> <i>Kashaya</i><br><b>Guna-</b> <i>Ruksha, Laghu</i><br><b>Virya-</b> <i>Ushna</i><br><b>Vipaka-</b> <i>Madhura</i><br><b>Doshagnata-</b><br><i>Tridoshashamaka</i><br><i>(Kaphashamaka)</i><br><b>Rogagnata-</b> <i>Shotha,Arsha,</i><br><i>Krimiroga</i><br><b>Karma-</b> <i>Shotahara,</i><br><i>Vednasthapana,</i><br><i>Krishnikaran,</i><br><i>Anulomana,Krimighna,</i> <sup>[21]</sup> .   | Antioxidant<br>&Antibacteri<br>al <sup>[22]</sup> ,<br>Wound<br>Healing<br>Activity <sup>[23]</sup> ,<br>Anti-<br>inflammatory<br>,<br>Antifungal,<br>Antiasthmati<br>c,                   |
| 5. | <b>Amalaki</b>                 | B.N.-<br>Phyllanthus<br>emblica Linn.<br>Family-<br>Euphorbiacea<br>e       | Fruit,<br>Seed,<br>Root<br>Bark,<br>Stem<br>Bark,<br>leaf | <b>Rasa-</b> <i>Amla, Madhura,</i><br><i>Kashaya, Tikta, Katu</i><br><b>Guna-</b> <i>Guru, Ruksha, Sheeta</i><br><b>Virya-</b> <i>Sheeta</i><br><b>Vipaka-</b> <i>Madhura</i><br><b>Doshagnata-</b><br><i>Tridoshashamaka specially</i><br><i>Pittashamaka</i><br><b>Rogagnata-</b> <i>Pittavikara,</i><br><i>Daha,</i> <b>Karma</b> –<br><i>Dahaprashamana</i> ,<br><i>Shonitasthapana,</i><br><i>Kaphaghna, Pramehaghna,</i><br><i>Rasayana</i> <sup>[24]</sup> | Anti-<br>inflammatory<br>&<br>Antipyretic <sup>[25]</sup><br>]<br>Antibacterial <sup>[</sup><br>26]<br>Antioxidant,<br>Antimicrobia<br>l, Antiulcer ,<br>Hypoglycemi<br>c ,<br>Analgesic . |
| 6. | <b>Darvi(<br/>Daruharidra)</b> | B.N.-<br>Berberis<br>Aristata<br>Family-<br>Berbiridaceae                   | Root<br>Fruit<br>Stem<br><i>Rasa</i><br><i>njan</i>       | <b>Rasa-</b> <i>Tikta, Kashay</i><br><b>Guna-</b> <i>laghu, Ruksha</i><br><b>Virya-</b> <i>Ushna</i><br><b>Vipaka-</b> <i>Katu</i><br><b>Doshagnata-</b> <i>Pitta-</i><br><i>Kaphaghna</i><br><b>Roghagnata-</b> <i>Shotahara,</i><br><i>Vednasthapana,</i><br><i>Vranashodhan,</i><br><i>Vranaropana,</i><br><i>Dushtastravahara, Puya &amp;</i>   | Antimicrobia<br>l <sup>[28]</sup> ,Wound<br>Healing<br>property <sup>[29]</sup><br>,Antioxidant,<br>Antibacterial<br>,<br>Anti<br>amoebic,<br>Anti-<br>Diabetic.                           |

|    |                       |  |                      |  |  |
|----|-----------------------|--|----------------------|--|--|
|    |                       |  |                      | <i>Kaphaghna, Bhagandar, Visarpa, Dushtavrana</i> <sup>[27]</sup>  |  |
| 7. | <b>Dantimool</b>      | <b>B.N.-</b><br>Baliospermum Montanum<br><b>Family-</b><br>Euphorbiaceae | Root<br>Seed<br>Leaf | <b>Rasa-</b> Katu<br><b>Vipaka-</b> Katu<br><b>Virya-</b> Ushna<br><b>Guna-</b> Guru, Tikshna<br><b>Prabhav-</b> Virechana,<br>Ashukari, Vikashi<br><b>Doshghnata-</b> Kaphagna<br><b>Rogaghnata-</b> Shotahara,<br>Vednasthapana,<br>Vranashotha, Vranakrumi,<br>Kushtakrumi <sup>[30]</sup>  | Antimicrobial <sup>[31]</sup> ,<br>Antibacterial,<br>Immunomodulator <sup>[32]</sup> ,<br>Anticancerous,<br>Antidiabetic.  |
| 8. | <b>Trivrutta</b>      | <b>B.N.-</b><br>Operculina Turpethum<br><b>Family-</b><br>Convolvulaceae | Root<br>Bark         | <b>Rasa-</b> Katu, Kashay,<br>Madhur, Tikta<br><b>Guna-</b> Laghu, Ruksha,<br>Tikshna<br><b>Virya-</b> Ushna<br><b>Vipaka-</b> Katu<br><b>Doshaghната-</b> Pitta-<br>Kaphagna<br><b>Rogaghната-</b><br>Dushtakaphagna- Vrana<br>puya & Dushtastravahara,<br>Vrana shodhana <sup>[33]</sup>   | Antidiabetic,<br>Anticancer &<br>Anti-inflammatory <sup>[34]</sup><br>Antibacterial<br>Antioxidant <sup>[35]</sup><br>Immunomodulator,<br>Antimicrobial,<br>Antidiabetic . |
| 9. | <b>Til</b>            | <b>B.N.-</b><br>Sesamum Indicum<br><b>Family</b> -<br>Pedaliaceae        | Seed<br>Leaf<br>Root | <b>Rasa-</b> Madhura, Kashay,<br>Tikta, Katu<br><b>Anurasa-</b> Kashay<br><b>Guna-</b> Guru, Snigdha,<br>Ushna, Tikshna, Sukshma,<br>Vyavayi, Vikashi, Vishada,<br>Sara<br><b>Vipaka-</b> Madhura<br><b>Virya-</b> Ushna<br><b>Doshaghната-</b> kapha-<br>Vatashamaka,<br><b>Rogaghната-</b> Deepan ,<br>Pachana, Bruhana,,<br>Vednasthapana,<br>Vranashodhana,<br>Vranaropana <sup>[36]</sup> | Wound Healing <sup>[37]</sup> ,<br>Anti- Pyretic & Anti-<br>Inflammatory <sup>[38]</sup> ,<br>Anti-Bacterial,<br>Anti-oxidant,<br>Antimicrobial.                           |
| 1  | <b>Kana (Pippali)</b> | <b>B.N.-</b> Piper   | Fruit                | <b>Rasa-</b> Katu, Madhur  | Antibacterial  |

|         |                                 |  |            |   |  |
|---------|---------------------------------|--|------------|---|--|
| 0.      |                                 | Longum Linn<br><b>Family-</b><br>Piperaceae  | s,<br>Root | <b>Guna-</b> Laghu, Snigdha,<br><i>Tikshna</i><br><b>Veerya-</b> Anushna<br><i>Sheeta</i><br><b>Vipaka-</b> Madhur<br><b>Doshagnata-</b> Pittashamak,<br><b>Rogagnata-</b> Shotha,<br><i>Krimiroga,</i> <b>Karma-</b><br><i>Vatanulomaka, Rasayana.</i> <sup>[39]</sup>   | ,<br>Cough<br>Suppressor,<br>Antiallergic <sup>[40]</sup> ,<br>Anti-inflammatory <sup>[41]</sup> , Hepato-Protective.  |
| 1<br>1. | <b>Saindhava(Saindhalavana)</b> | <b>English Name-</b><br>Chloride of Sodium<br><b>Latin Name-</b><br>Sodi chloridum | Salt       | <b>Guna-</b> Laghu, Snigdha,<br><i>Tikshna</i><br><b>Virya-</b> Sheeta<br><b>Doshagnata-</b> Tridoshsamak<br><b>Karma :</b> vrana<br><i>Rogaghanata- Shothahara,</i><br><i>Vranadoshahara</i> <sup>[42]</sup>   | Antioxidant,<br>Anti-inflammatory,<br>Anti-flatulent,<br>Expectorant,<br>Antacid.                                      |
| 1<br>2. | <b>Madhu</b>                    | Honey  |            | <b>Rasa-</b> Madhur<br><b>Anurasa-</b> Kashay<br><b>Guna-</b> Ruksha, Laghu,<br><i>Sheeta,</i><br><b>Karma-</b> Yogavahi, Lekhana,<br><i>Balya, Sandhankar,</i><br><i>Shodhaniya, Ropaniya,</i><br><i>Prasadankar</i><br><i>,Strotoshodhaka</i><br><i>Rogaghanata- Dushtavrana,</i><br><i>Prakothavrana Shodhaniya</i><br><sup>[43]</sup> | Antibacterial,<br>Anti-inflammatory,<br>Antioxidant,<br>Wond Healing agent<br>(healer) <sup>[44]</sup>                 |
| 1<br>3. | <b>Nimbuk Swaras</b>            | <b>B.N.-</b> Citrus<br>LimonLinn.<br>Burm.F<br><b>Family-</b><br>Rutaceae          | Fruit      | <b>Rasa-</b> Amla, Madhura<br><b>Guna-</b> Laghu, Snigdha<br><b>Vipaka-</b> Madhura<br><b>Virya-</b> Anushna<br><b>Doshagnata-</b> Pittaghna,<br><i>Vatanulomaka</i> <sup>[45]</sup>  | Antibacterial,<br>Antimicrobia <sup>[46]</sup> ,<br>Antioxidant <sup>[47]</sup> ,<br>Anti-inflammatory,<br>Antifungal. |

**DISCUSSION :** In *Sushrut Samhita*, the complete pathogenesis of *Bhagandar* has been described under heading *Shatkriyalakal* ( six stages of fistula ),beginning from *Sanchaya*( Stage of

accumulation of *Dosha* at normal sites ), *Prakopa*( Stage of Provocation ), *Prasara* (Stage of Propagation) , *Stahna sanshraya* (Stage of Localization), *Vyakti* (stage of Manifestation) upto *Bheda* (Stage of

Complication) which perfectly reveals onset and progress of disease. *Bhagandar* is manifested by severe referred pain to *Bhag* (perineum), *Gud* (Anal) & *Basti* (Pelvis). Also The clinical features are described beautifully as per the stages i.e. *Shatkriyalakala* as above. The cardinal features are explained as per dominance of *doshas* like in *Vataj* type the discharge associated with flatus, faeces and pricking pain, in *Pittaj* type there is very foul smelling with burning pain and in *Kaphaj* there is sticky discharge with comparatively more itching. *Acharya Vagbhata* has described that *Rakta and Mamsa* are narrated as *dushya* resulting into Sinus with the discharge of pus in the region of anus, perineum & bladder *Dravyas* in *vartis* having *ruksha ,laghu , vishada guna* and having properties like *Vednasthapana , Shonitasthapana , Lekhaniya, Strotoshodhak, Vranastravahara, Shodhana, Ropana, Prasadankara, Puyaghna* so reduces pain, discharge of pus & heals the *Vataj , Pittaja & kaphaja type of Bhagander*. *Tuthha* is the chief ingredient & mineral drug possess *guru, snigdha guna , tikta rasa* reduces *kapha and Vrana Dosha* used in the treatment of various diseases like *kushtha, Putigandhita vrana, Phirangaja vrana, Arsha, etc*<sup>[10]</sup>. As it shows *Shothahar, Vranashodhan , Vranaroapan & Dushtastravahar* effect locally. Also Pharmacological Activities of each ingredients of the *Tuthhakadi Varti* has *tikta kashay rasa & ushna veerya* shown its use as Anti- inflammatory, Anti-Bacterial, Anti- Fungal and Anti- Oxidant. It also shows Antimicrobial, Anti Diabetic properties As Modern surgery employs wide excision and depends on secondary healing for the treatment of sinus which is time consuming cause uneasiness to the

patient and with high chance of recurrence. There is a need for the alternative or innovative techniques for the management of this challenging diseases, so as to minimize recurrence, make it cost effective, with improved acceptability and minimum hospitalization. So Ayurvedic conservation method is best for the treatment of *Nadi Vrana*. *Varti* insertion minimizes rates of complication and recurrence and acceptable treatment to the patient in terms of cost of treatment, Extent of discomfort .

### CONCLUSION:

Among all *Varti Kalpana, Tuthhakadi Varti* is one of the important herbo mineral formulation which is useful in *Kapha pittaja Vikara* . Therapeutically (Locally) it is indicated in *Nadivrana & Bhagandar for Vrana* . Most Ingredients have *Tikta , Kashay , Madhur Rasa* predominantly. *Veerya* of Some ingredients are *Ushna (Kushtha, Haritaki, Bibhitaki, Darvi, Dantimool, Trivrutta, Til, whereas Amalaki, Nimbu And Pippali* having, *Sheeta, Anushna Anushn Saheeta, Sheet Virya*. Most of the ingredients possess *Katu* and *Madhura Vipaka*. Over all properties of *Tuthhakadi Varti* has *Tikta, Kashay, Madhur Rasa, Ushna Virya and Katu Vipaka*. *Tuthhakadi Varti* Shows *Kaphavatashamak* Properties predominantly. It also shows *Shothahar, Vranashodhan , Vranaroapan & Dushtastravahar* effect locally . Pharmacological Activities of the ingredients of the *Tuthhakadi Varti* has shown its use as Anti- inflammatory, Anti-Bacterial, Anti- Fungal and Anti- Oxidant. It also shows Antimicrobial, Anti Diabetic & Anti cancerous Properties .So This Review helps the Researcher to explore this formulation for more pharmacological activities of the *Tuthhakadi Varti*.

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