

A REVIEW OF SNUHYADI VARTI IN THE MANAGEMENT OF BHAGANDARA W.S.R. TO FISTULA-IN-ANO

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ABSTRACT

Acharya Sushruta known as the founder of surgery and can say surgery is the gift of *Acharya Sushruta* to the world. *Acharya Sushruta*, *Bhagandar* is considered in *ashta mahagada* (Eight grave disorder).^[1] *Bhagandar* literally means *darana* around *bhaga*, *guda* and *vasti*.^[2] Patient which is suffering from *bhagandar* faces discomfort due to discharge and sometimes pains in his daily routine life. There are many surgical procedures for the management of *bhagandar* but its recurrency rate and complications after surgery are very high. Till date there is no any gold standard method for the management of *bhagandar* and incidences of this disease is very high That's why it is

the most challenging topic of ano-rectal surgery. In *bhaisjya ratnavali bhagandar chikitsa adhyaay* 51 describes about the *snuhyadi varti* which is destroy all the branches of *bhagandar* without any surgical intervention. *Snuhyadi varti* is composed of *snuhi latex*, *arka latex* and *daruharidra*.^[3] Its pharmacological actions are anti-inflammatory, anti-microbial, anti-septic, anti-heparin, anti-proliferative, vaso-relaxant and wound healing. Due to corrosive property of latex, it removes all the pathogens, slough and fibrotic tissue from the track thus provide healthy granulation tissue for healing. It is an OPD based procedure and does not need any anesthesia. Cosmetically it is better because of no excessive damage of surrounding tissue and skin. During therapy patient does not suffer from pain, discomfort and mental stress and perform his daily routine work. *Snuhyadi varti* is complication free therapy and recurrence

rate is also very less so we can say that *bhagandar* can be successfully treated by *snuhyadi varti* without any surgical intervention.

INTRODUCTION

The incidence of fistula-in-ano developing from an anal abscess range 26% to 38%. One previous case study shows that the prevalence of fistula-in-ano is 8.6 cases/1,00,000 population. In men 12.3% and in women 5.6% population.^[4] (<http://emedicine.medscape.com>). *Acharya Sushruta* (500B.C.) had broadly described about *Bhagandar*.^[5] The word “*Bhagandar*” is composed of two words *Bhaga* and *Darana*. *Bhaga* the area between anus and genitalia. *Bhaga* is used synonym to *Yoni* and *Mehana*. The word *Bhagandar* literally means *Darana* around *Bhaga* (pelvic), *Guda* (rectum), *Vasti* (urinary bladder).^[6] Their premonitory symptoms are pain in the alae of the pelvic edema, itching, pain, burning sensation, swelling appearing in the anus and waist during riding or during elimination of faces. In person who indulges in unhealthy foods and activities doshas get aggravated and localized in about one *angula* (2cm) or two *angula* (4cm) around the anus vitiates the muscles and blood, gives rise to a *Pidika* accompanied with pricking and other kind of pain; if not treated in time, this undergoes ripening (suppuration) and converted into *bhagandar*. If this is neglected then flatus, urine, feces and semen also start coming out from the abnormal external opening.^[7] All kinds of fistula-in-ano are dreadful, difficult to treat (cure); among them that produced by all the three doshas together and that by injury (wound) are incurable. Because of its challenging nature and associated complications, it has been considered under *Ashta Mahagadas* (eight grave disorders) by *Acharya Sushruta* (*Sushruta Samhita Sutra Sthana chapter 33*).^[8]

Fistula is a communicating track between two epithelial surfaces, commonly between a hollow viscus and skin.^[9] The track is lined with granulation tissue which is subsequently epithelized. Patient having symptoms like pain, discharge, indurated, itching, tenderness and fever. Fistula-in-ano although a benign anorectal disease influences a patient's quality of life and in severe cases frank sepsis is develop.^[10] Despite its long history and prevalence, fistula-in-ano is one of the most challenging topics in anorectal surgery today.

Nirukti varti

“*Vartayati iti varti*”^[11]

Definition

“*Vartiriva swarupatvat varti namma prakirthitha*”^[12]

Powdered medicaments are triturated and made into the shape of a wick of lamp; it is thicker at middle and thinner at its ends.

Acharya sharangdhara has mentioned *varti* in the synonyms of *vati*, which are long like a lamp, thin at edges and made in *yavakar* shape known as *varti* (wick). Binding agent like jaggery, honey, water, milk or latex and *gomutra* etc. are used along with fine powder of drugs in the manufacture of *varti*. For example; *chandrodaya varti* has made with the help of goat milk. *Varti* is prepared by the process of *mardana* of fine powder of raw drug with help of liquid material (should have binding property). Thus, formulation concept of *varti* and *vati* are similar to each other. Due to its similarity, the name *varti* was given. *Varti* are the following types depending upon the use of place,^[13]

1. *Guda varti or phala varti* (Rectal suppository)
2. *Yoni varti* (Vaginal suppository)
3. *Netra varti*
4. *Dhumra varti*
5. *Vrana varti*
6. *Nasa varti*

Snuhyadi varti is a type of *vrana varti*. *Vrana varti* are meant for insertion into wounds (*Vrana*) for the purpose of their cleaning, drainage and cauterization (*Shodhana*, *Ropana*, *Shravaharana*, *Vedanaharana* and *Dahakarma*). It is mentioned in the management of *vrana* and those *vrana* having pain due to discharge and inflammation. *Shodhana* and *ropana* has the property of *varti*. *Snuhyadi varti* described by many acharyas in the management of *nadivrana* and *bhagandar*. In text of *bhaisjya ratnawali* (*Snuhyadi varti*)^[14] and *chakradatta* (*Snuhyadi varti*)^[15] has been mentioned for the management of *bhagandar*. *Vati* and *varti* are similar to each other that's why method of preparations is same. Method of preparation of *Snuhyadi varti* as like *vati* preparation. *Daruharidra*, *arka ksheera* and *snuhi ksheera* are the content of *snuhyadi varti*.

Preparation of snuhyadi varti

Material

- Fine powder of *daruharidra*

- *Snuhi ksheera*
- *Arka ksheera*
- *Kharala*

Method of preparation^[16]

First of all, collect all the materials using for the formulation of *snuhyadi varti* then take bark of *daruharidra* and dry in sunlight for 2-3 days. Make the fine powder of *Daruharidra* separately and using number 125 sieved to obtain fine powder. Early morning, collect the latex of *snuhi* and *arka*. All three drugs are putting into the *kharal* (mortal) in same quantity and *mardana* all the drugs until it becomes to fit to make uniform wicks or *madarna* at least for 2-3 hours. After that taking small pill of *mardana* drugs and rolling. *Varti* is prepared in appropriate size and shape according to the fistulous track. *Varti* (wicks) must be homogenous and firm on touch otherwise it does not apply into the fistulous track. Then it is dried under shade and stored in airtight container at suitable room temperature.



Figure 1



Figure 3



Figure 2



Figure 4

Ayurvedic pharmacology properties of single drug

Drug name	<i>Snuhi</i> ^[17]	<i>Arka</i> ^[19]	<i>Daruharidra</i> ^[19]
Latin name	<i>Euphorbia neriifolia</i>	<i>Calotropis procera</i>	<i>Berberis aristata</i>
Family	Euphorbiaceae	Asclepiadaceae	Berberidaceae
Rasa	Katu	Katu, tikta	Tikta, kshaya
Guna	Laghu, tikshna	Laghu, ruksha, tikshna	Laghu, ruksha
Virya	Ushna	Ushna	Ushna
Vipaaka	Katu	Katu	Katu
Local action	Ksheera- lekha, sothahar, arsha and bhagandar.	Sodhana, ropana, vednasthana, sothahar and jantughna etc.	Sothahar, vednasthapana, sodhana, ropana and bhagandar etc.
Phytochemical properties	<i>Snuhi</i> latex contain neriifoliene, neriifolio, euphol, lectin, steroid, triterpenes, acetone, cycloscetenol and chloroform etc. ^[20]	<i>Arka</i> latex contains alkanoids, saponins, tannis steroids, flavonoids, anthraquinone and triterpenoids etc. ^[21]	<i>Daruharidra</i> contains berberine, alkanoids, flavonoids, diterpenes, anthraglycosides, tanins, saponins, glycosides and coumarins. ^[22]
Pharmacological actions	Cytotoxic activity, anti-inflammatory, anti-microbial and mitogenic activity etc. ^[23]	Anti-microbial, cytotoxic activity, wound healing and anti-inflammatory properties etc. ^[24]	Anti-mycotic action, anti-histaminic, anti-cholinergic, vaso-relaxant, local anesthetic, anti-heparin and anti-proliferative etc. ^[25]

Phytochemical Pharmacological properties of drugs***Daruharidra***

The plant contains phytoconstituents alkaloids, flavonoids, titerpenes, diterpenes, tannis, saponions and glycosides. Berberine is an alkaloid found in the plant daruharidra.^[26]

Berberine is very effective against mycotic infections. It produces anti-histaminic and anti-cholinergic actions in isolated guinea pig ileum and had local anesthetic action. It was found to have vasorelaxant and anti-proliferative effects and anti-heparin actions in dog and human blood.^[27]

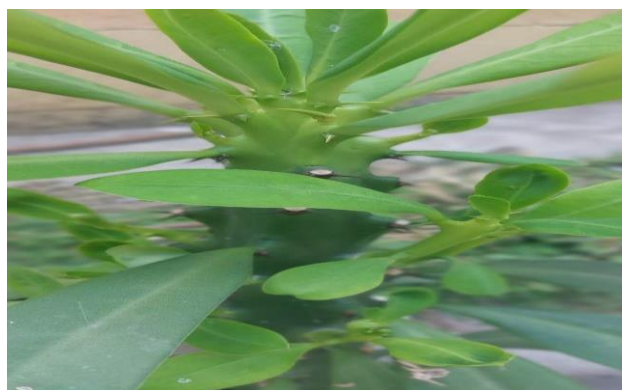


Snuhi latex

Petroleum ether fraction of latex was tested for anti-inflammatory effect by bignoniya in carrageenan induced rat paw oedema due to presence of triterpenes like euphol, cycloacetanol, nerrifoliol and lectins.^[28]

Euphol reduces both proliferative and cell mortality but no effect was found on cell cycle distribution invasion and colony formation. Euphol exerts in vitro and in vivo cytotoxicity against glioma. At intra cellular level euphol reduces extra cellular signal, regulate by protein kinase activation and cyclooxygenase-2 up regulation. These effects were associated with euphol's ability to prevent protein kinase C activation namely PKC_x and PKC and isozyme topical application inhibit the inflammation response.^[29]

Lectins such as the ribosomes-inactivation proteins. Lectins are able to inhibit the development of microbial cells as lectins recognize carbohydrates glycol conjugate in cell surface. According to these specificity lectins forms different source can acts as antimicrobial properties. Lectins shows mitogenic activity in mononuclear blood cells and anti-proliferative activity in cell lines of human cancer.^[30]



Arka latex

Triterpenoid saponin have wound healing activity due to enhancing the collagen formation and angiogenesis. It is also evaluated that synthetic derivatives of beta hederine showed anti cytotoxic properties against major human cell lines. Saponin induced cell cycle arrest of human cell line and apoptosis.^[31]

It has Tannins contains anti-inflammatory properties that can help minimize redness and inflammation. For those who wish to reduce cell damage. Tannins acts as an antioxidant against free radicals as a natural astringent. It also leads to improved wound healing and reduced scar tissue formed by inhibition of the formation and removal of reactive oxygen substances.^[32]

Flavonoids nowadays are being used in different formulations and wound healing dressings. Inflammation, proliferation and re-epithelization are involved in wound healing. Flavonoids act as synergistic effects. The activation of fibroblast growth by flavonoids is beneficial for the treatment of skin injuries.^[33]

It contains anthraquinones, alkaloid, saponin, terpenoids, flavonoids, glycosides and tannins. It shows various activities like anti- inflammatory, anti-microbial, anti-oxidant.

Anthraquinone have antimicrobial and cytotoxicity activity.^[34]

**Probable mode of action of *snuhyadi varti***

Snuhyadi varti does cauterization effect by its phytochemical substances which helps in curetting, draining and healing of the fistulous track. Its corrosive properties destroy and separates the debridement, unhealthy, fibrotic tissue which helps in cleaning the wound. It controls the microbial infection (Bacterial and Fungi etc.) by its anti-microbial action.

Daruharidra have vasorelaxant property which is increase the blood supply and filling the track with fresh granulation tissue. Anti- heparin property prevents the excessive blood loss and local-anesthetic effect shows the analgesic effect. Thus, *snuhyadi varti* gives the better therapy for the management of the wound.

Advantages or importance of *snuhyadi varti*

- Less pain and discomfort to patient
- Recurrence rate is very low
- Scar-free therapy
- Less damage the surrounding tissue
- No need of Anesthesia
- OPD based / day care procedure

Complication of *snuhyadi varti*

- Inflammatory changes seen in some patient due irritating property of latex.
- Mild pain seen due to inflammatory changes.
- Redness and tenderness may be present

DISCUSSION

In *Sushruta Samhita Bhagandar* is considered in *ashta mahagada* (Eight grave disorder).^[35] *Bhagandar* literally means *darana* around *bhaga*, *guda* and *vasti pradesh*.^[36] Patient which is suffering from *bhagandar* faces many problems and gradually it's going to wrost. There are many surgical procedures for the management of *bhagandar* but its recurrency rate and complications after surgery are very high. There is no gold standard method, we just here to find out best therapy or method to treat *bhagandar* (fistula-in-ano).

Snuhyadi varti has been mentioned in ayurvedic text (*bhaisjya ratnavali*) for the management of *bhagandar* (fistula in ano). *Snuhyadi varti* composed of three drugs (*snuhi latex*, *arka latex* and *daruharidra*).^[37] which have many chemical properties like Berberines, Petroleum ether, Euphol, Lectins, Triterpenoid saponin, Flavonoids, Anthraquinones, Alkaloid, Flavanoids, Glycosides and Tannins etc. Every chemical constituent having own property for wound healing. Berberines is effective against mycotic infections (which prevent recurrent infections) and produces anti-histaminic, anti-cholinergic actions, local anesthetic action, vasorelaxant (improve blood supply which promotes which healing, anti-proliferative effects and anti-heparin (helps to check bleeding). *Snuyadi varti* experiment done in many years ago.

Now we just imply in patient just to the know better treatment of *bhagandar* (fistula-in-ano). As like *kshar sutra* has been explained or written in old ayurvedic text (*chakradatta*) now it is the best therapy to treat *bhagandar* (fistula-in-ano).

CONCLUSION

Snuhyadi varti is very efficient and simple to use. *Varti* used locally into the fistulous tract. It treats illness of *bhagandar* by virtue of its *shodhana* and *ropana* property.

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