

A CONCEPTUAL STUDY ON THE EFFECT OF *GUGGULU* BASED *GANDHAMLIYA YASHADA KSHARA SUTRA* IN *SHALYAJA NADI VRANA*

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ABSTRACT

Kshara Sutra is a unique para surgical procedure mentioned in *Ayurveda*. *Kshara Sutra* is defined as a medicated thread coated with herbal alkaline drugs. *Kshara Sutra prayoga* is mentioned by *Acharya Sushruta* in the management of *Shalyaja Nadi Vrana*. *Acharya Sushruta* has explained *Shalyaja Nadi Vrana* as a complication of *Vrana Shopha*. *Shalyaja Nadi Vrana* is manifested due to presence of *Bala* (hairs) and *puya* (pus) in *Twagadi dhatus*. Pilonidal Sinus can be correlated with *Shalyaja Nadi Vrana* as they have same clinical features. Pilonidal Sinus is managed by radical excision of tract or Z plasty or by using rhomboidal flap of skin. Even by all these management in contemporary science expected results is not seen. To overcome the complications like recurrence, hospitalization and long-term post-op dressing, a *Kshara Sutra* can be used as a better treatment modality as it minimizes many of the complications. Many established herbal *Kshara Sutras* are available in market. *Guggulu* based *Gandhamliya yashada kshara sutra* has *Gandhamliya yashada* as *Kshara* which is a *Rasaushadi*. *Gandhamliya Yashada Kshara* has properties which will be helpful in lysis of tissues, reduces the discharge and also helps in wound healing in *Shalyaja Nadi Vrana*. So, this study is taken up to explore the combined effect of a herbo mineral *Guggulu* based *Gandhamliya yashada kshara sutra* in *Shalyaja Nadi Vrana*.

Keywords: *Shalyaja Nadi Vrana*, *Gandhamliya Yashada Kshara Sutra*, Pilonidal Sinus.

INTRODUCTION

Shalyaja Nadi Vrana i.e. Pilonidal Sinus has become a challenge to most of the surgeons due to its recurrence. This is commonly found in drivers and in sedentary workers. Due to constant sitting there is exertion on post anal region where the pits pull the hair inside the body to cause pilonidal Sinus.

Shalyaja Nadi Vrana is a type of *Nadi Vrana* explained by *Acharya Sushruta* as a complication of *Vrana Shophya*. It persists due to presence of *Bala* and *Puya* entering into *twagadi dhatus*, eventually leading into a *Nadi Vrana*.

Shalyaja Nadi vrana is identified by the presence of *Shalya* (foreign body) which is *agantuja* and gets lodged within the body and is invisible. Due to which there will be haemanginous frothy discharge, sometimes hot in nature. The discharge varies from minimum to maximum and is associated with mild to moderate pain. Here, the *Gati* (movement) of the *Shalya* is very slow, as the foreign body gets lodged in the tissue rather than floating, it is difficult to remove hairs. So, the sinus will heal slowly. *Shalyaja Nadi vrana* is *Kashta sadhya*.

Acharya Sushruta has advised the use of *Eshani* i.e. probe for local examination. With the help of a probe direction of tract and its length can be assessed easily. It is also used for probing⁽¹⁾. The line of treatment of *Nadi Vrana* is excision of the tract along with its linings. The word "*Shastrena utpathya karmavit*" indicates the exploration of the tract and its excision. After the surgical procedure, further management is similar to the management of *Vrana*. *Nadi Vrana* is also indicated among *Chedyaya*, *Bhedyaya* and *Aharana yoga vyadhis* as extraction of foreign body is required in *Nadi Vrana*. *Acharya Sushruta* has indicated the use of *Kshara sutra* in *Nadi Vrana* in the patients who are emaciated, timid and located at the *Marma sthanas*⁽²⁾. The contemporary science describes a similar condition known as Pilonidal Sinus. A Pilonidal Sinus is a blind tract extending from surface of skin into deeper tissues lined by unhealthy granulation tissue⁽³⁾. Broken hairs tend to collect in natal cleft eventually penetrates into skin to form Pilonidal Sinus.

Incidence of disease is about 26 lakh per population typically seen in hirsute male than in female in ratio of 6:1⁽⁴⁾. The most common surgical technique used for this disorder includes radical excision, evacuation and curettage, closure by Z plasty, rhomboidal flap surgery, excision and flip skin grafting which requires anesthesia, hospitalization and long-term post-op dressing⁽⁵⁾. In surgeries like Z- plasty and rhomboidal flap there is altering of anatomical structure, ramification occurs, scar tissue will be formed. This again leads to recurrence which is 20% even after adequate incision and proper dressing. There will also be a chance of developing secondary infection of the wound.

Acharya Sushruta has advocated a very unique, minimally invasive technique i.e. *Kshara Sutra* in the management of *Shalyaja Nadi Vrana*. *Kshara Sutra* is minimally invasive as it does not alter any anatomical structure. No hospitalization is required, and it is a simple OPD based procedure. Available *Kshara sutras* in market are herbal. Collection of the drug is difficult as it should be collected in a particular time. *Snuhi ksheera* which is used as base should be collected only in *Adana kala*. To overcome this *Guggulu* is used as base which can be collected and stored for a long time. Instead of *Apmarga kshara*, *Gandhamliya Yashada* is used as *Rasaushadi* will be very potent even in small dose when compared to herbal drug. It cuts the tracts, helpful in lysis of tissues, reduces the discharge and also helps in wound healing, removes the *Shalya* while changing the *Kshara sutra*. By considering all these factors *Guggulu based Gandhamliya Yashada Kshara sutra* has been taken up for the study in *Shalyaja Nadi Vrana* which is a *Kashta sadya vyadhi*.

Preparation of Gandhamliya Yashada Kshara Sutra **Materials required**

a. *Shodita Guggulu*

b. *Gandhamliya yashada Kshara*

Shodhana - Yashada is taken in an iron pan, heated till it melts and poured into a container having *Sudha jala*. This procedure is repeated for 7 times⁽⁶⁾.

Yashada churna - *Shoditha yashada* is taken in an iron pan, heated till it attains molten state. Small amount of *apamarga pancanga* is added and heated, till *yashada* attains powder form. Heat is stopped, *Yashada churna* is allowed to cool⁽⁷⁾.

Gandhamliya Yashada - *Yashada churna* is taken in a *Loha paatra*. *Gandhamla jala* is added till *Yashada* dips. Solution is filtered. Obtained solution is subjected to heat on mild fire till white colored *Gandhamliya yashada kshara* is obtained⁽⁸⁾.

c. *Haridra*

Method of Preparation of Guggulu Based Gandhamliya Yashada Kshara Sutra

Kshara Sutra will be prepared by using Barbor's surgical linen thread No. 20. Initially thread will be coated with 11 coatings of *Guggulu* and dried after each coating. 7 coatings of *Guggulu* and *Gandhamliya Yashada Kshara* is applied consequently and dried after each coating. Following 3 coatings of *Guggulu* and *Haridra churna* is applied and dried. Thus, prepared *Kshara Sutra* are exposed to UV rays and stored in an airtight container.

Procedure of Application of Kshara Sutra

In the procedure of *Kshara Sutra* application, patient is made to lie in prone position. Under aseptic measures probing will be done into the tract till resistance is felt, following which an artificial opening is made at the site. Thus, converting a sinus tract into a fistula. Primary threading is done. After 2 days primary thread is replaced by *Kshara Sutra* in railroad method and ligated adequately tight. On every 7th day *Kshara Sutra* change is done and hairs are removed which are adhered to *Kshara sutra*. Length of Tract is measured in every sitting of *Kshara Sutra* change. Observation should be made till complete cutting and healing of tract.

DISCUSSION

Properties of Guggulu Based Gandhamliya Yashada Kshara Sutra

- *Guggulu* used in *Kshara sutra* will be having *Sukshma*, *Tridoshagna*, *Lekhana*, *Vedana sthapanana* and *Shodhana guna*, it also acts as a good

binding agent⁽⁹⁾. Collected *Guggulu niryasa* can be stored and used for a long time.

- *Gandhamliya Yashada Kshara* is having *Puyaghna*, *Vrana samsrava shamana*, *Sankocakara guna* and is *Sreshta kshara karma Kara param*⁽¹⁰⁾. These properties will be beneficial in treating *Shalyaja Nadi Vrana* as there is *Vedana*, *Puya srava* and *Vrana*.
- *Gandhamliya Yashada* is Zinc Sulphate. Zinc sulphate is used as a dietary supplement and also used in treating zinc deficiency. Zinc is especially beneficial for inflammatory skin condition. So, Zinc sulphate is beneficial in treating the wound condition.
- *Haridra* is having *Krimighna* properties. The anti-bacterial effect of turmeric helps in avoiding secondary infection of the wound.

The drugs used in preparation of *Kshara Sutra* are easily available. A surgeon can prepare it easily and can use it in the clinical practice. The properties of individual drug have been explained and the combined effect of drugs in *Kshara Sutra* helps in debridement and lysis of tissues. Recurrence of the disease is one of the main complications of pilonidal sinus, this herbo-mineral *Kshara sutra* can help in fast healing and cutting of the tract by destroying the residual glands in epithelium. In every consecutive changing of *Kshara Sutra*, *Bala* which is a *Shalya* which would be adhered to *Kshara Sutra* is removed. So, the causative factor is treated. Post op complication like secondary infection of the wound doesn't occur. Long term post op dressing is not required. With minimal invasion maximum benefits is obtained by this *Kshara Sutra* technique.

CONCLUSION

Since *Kshara Sutra* is considered to be simple, safe and minimally invasive Para-surgical procedure it can be used in *Shalyaja Nadi Vrana*. *Shalyaja Nadi Vrana* has *Bala* as *Shalya* along with *Vrana*, *Srava* and *Vedana*. *Gandhamliya yashada* has *Puyaghna*, *Vrana samsrava hara* properties. *Yashada* helps in *Vrana shodana*, *Ropana* and *Sankochakara* property of *Yashada* helps in closing of the tract. By considering

all these factors, *Gandhamliya Yashada Kshara sutra* can be taken up in *Shalyaja Nadi vrana* for the pur-

pose of study and results can be evaluated.



Fig 1: Yashada Churna



Fig 2: Filtration of Gandhamliya Yashada Jala



Fig 3: Gandhamliya Yashada Kshara



Fig 4: Gandhamliya Yashada Kshara coating

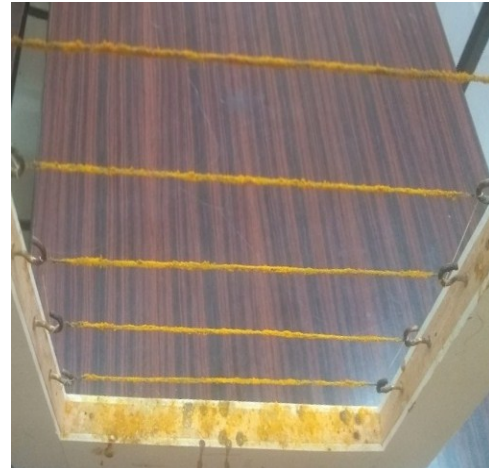


Fig 5: Gandhamliya Yashada Kshara sutra

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