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APPLICATION OF KSHARSUTRA IN THE MANAGEMENT OF NADI VRANA (PILONIDAL SINUS): A CASE STUDY

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ABSTRACT

A Pilonidal sinus (PNS) occurs in the cleavage between the buttocks (natal cleft) and can cause discomfort, embarrassment and absence from work. It is more common in men (as they have more hairs) than in women. The most commonly used surgical techniques for this disease include excision and primary closure and excision with reconstructive flap. However, the risk of recurrence or of developing an infection of the wound after the operation is high. Also, the patient requires longer hospitalization, and the procedure is expensive. There is a similarity between *Shalyaj Nadi Vrana* described in *Sushruta Samhita* and Pilonidal sinus. Sushruta has advocated a minimally invasive para-surgical treatment, viz. *Kshar Sutra* procedure, for *nadi vrana*. Hence this therapy was tried in Pilonidal sinus. *Kshar Sutra* treatment not only minimizes complications and recurrence but also enables the patient to resume work quicker and with less discomfort, impact upon body image and self-esteem as well as reduced cost.

Keywords: Pilonidal sinus, *Shalya Tantra*, *Nadi Vrana*, *Kshar Sutra*.

INTRODUCTION

Pilonidal sinus is an anorectal ailment affecting young men and women. Surgical line of treatment is described for its management, but there is high chance of reoccurrence leading to considerable morbidity (Bendewald & Cima, 2017). Hairs entering into the skin at the natal cleft region leading to a foreign body reaction, causing a hairs filled abscess cavity are known as Pilonidal disease. Twenty six people in a population of 100,000 are found to have this problem by a research study which also suggests an association of obesity (37%), occupation with less physical activity (44%), and any injury or irritation locally (34%) with Pilonidal disease (Sondenaa, Nesvik, Anderson, Natas, Soreide, 1995). Sacrococcygeal pilonidal sinus is commonly found in young age group especially between 15-30 years, with a 3:1 male to female ratio. Usually it is seen in puberty, as sex hormones are known to affect the pilosebaceous gland and alter the healthy body hairs growth. The incidence of pilonidal disease is not commonly seen in people older than 40.

CASE STUDY

History of present illness- A 33 years old male patient, came to the Shalya O.P.D. at Govt. P.G. Ayurveda College and Hospital, Varanasi, U.P. in October 2019 with complaints of recurrent discharge from a boil over pre operated site on natal cleft along with pain and discomfort.

Surgical history- He gave a history of operation performed for Pilonidal sinus in 2017. The disease re-occurred after 2 years.

The patient was not willing for surgery again and requested for Ayurvedic treatment. Hence, *Kshar Sutra* procedure was offered.

Investigations- Routine investigations such as CBC, Hb%, blood sugar- fasting and post prandial, bleeding time (BT), prothrombin time (PT), Urine (R/ M, C/S), Viral markers- HCV, HBsAg, HIV type I & II, X-ray chest to rule out primary tubercular site, ECG.

PROCEDURE -

Pre-operative procedure-

- Inj . tetanus toxoid 0.5 ml I/M
- Inj. Xylocaine 2% 0.2 ml S/C (for sensitivity)

Procedure- The two external openings of pilonidal sinus were widened under local anesthesia and the embedded hairs were removed. The *Kshar Sutra* was tied covering the entire underlying track for simultaneous cutting and healing. Appropriate dressing was given under aseptic conditions.

Post-operative care-

1. Triphala gugglu- 500mg (wound healing properties)
2. Nimbadi churna- 3gm (Effective in all skin disorder), Shuddh Gandhak-125mg (Antimicrobial), Godanti bhasm- 500mg (Analgesic and antipyretic) twice a day
3. Jatyadi oil for local application (wound healing properties)
4. Analgesics SOS

Note: Broad spectrum antibiotics for 5 days

Advise- sitz bath with luke warm water (5-10 min) twice a day.

Discharge- The patient was discharged on the day after the procedure.

FOLLOW UP - Patient was asked to attend shalya O.P.D. for dressing on alternate days. Sitz bath (hip) with lukewarm water was advocated before dressing. The *Kshar Sutra* was changed weekly for 3 sittings. To promote healing and reduce pain & inflammation oral antibiotics, anti-inflammatory drugs were prescribed along with ayurvedic formulation.

The track cut through and simultaneously healed by 4 weeks. However, it was observed that healing rate was slow in compare to cutting rate and the patient was observed for a period of one year for any recurrence.

KSHARSUTRA

Preparation- *Kshar Sutra* is a medicated thread (seton) coated with herbal Alkaline drugs like Apamarga *Kshar* (Ash of *Achyranthus aspera*), Snuhi (*Euphorbia nerifolia*) latex and Haridra (*Curcuma longa*) powder in a specific order.

Function- This combination of medicines on the thread helps in debridement and lysis of unhealthy tissues exerts antifungal, antibacterial, and anti-inflammatory action. Another mechanism proposed for the *Kshar Sutra* is that it destroys the residual glands in the epithelium.

DISCUSSION

Pilonidal sinus is a chronic inflammatory and persistent track in the natal cleft often considered as a congenital or acquired disease. In congenital type a persistent midline pit occurs from birth due to defect in the embryonic fusion. It frequently gets infected due to desquamated epithelial debris in those who lack of proper hygiene.

In acquired variety, the presence of a deep natal cleft, obesity, excess hairs and sweating creates a favourable atmosphere for skin maceration. Moisture can fill a stretched hair follicle, which helps to create a low oxygen environment that promotes the growth of anaerobic bacteria. The hairs broken off by continuous friction gets collected in the cleft causing local dermatitis and inflammation. Once the sinus is formed, intermittent negative pressures of the area suck other loose hairs into the pit, which is often lined by stratified squamous epithelium. The direction of track in majority is cephalad.



Figure-1



Figure-2

CONCLUSION

This minimally invasive procedure *Kshar Sutra* has good potential in the management of Pilonidal sinus. It minimizes rate of complications, recurrence and enables the patient to resume work and normal social activities as early as possible. It is an acceptable treatment to the patient in terms of cost of treatment, extent of discomfort, impact upon body image and self-esteem.

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