

Low Anal Fistula Managed by Asphota Ksharasutra Application – A Case Report

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ABSTRACT:

Fistula in ano is a track lined by unhealthy granulation tissue, which opens externally to the skin around the anus and internally to anal canal or rectum. Low anal fistula is a common type as per Milligan Morgan classification of fistula in ano, in which the internal opening of the track is below the anorectal ring. As per the signs and symptoms mentioned, the condition is correlated with *Bhagandara* mentioned in the ayurvedic classics. *Ksharasutra* therapy is the renowned mode of treating conditions like fistula and sinuses. *Asphota* is the drug mentioned under *Ksharagana* (a group of drugs possessing caustic properties) of Acharya Vagbhata, which is the synonym of *Aparajitha* (*Clitoria ternatea* Linn.). *Ksharasutra* made using *Kshara* prepared out of *Asphota* is used to treat low anal fistula in a 27-year-old male patient and found to be effective in using the condition, by assessing the unit cutting time and healing time. It is found as having better unit cutting time compared to conventional *Apamarga Ksharasutra* and the patient did not faced any side effects or complications during the period of treatment.

KEYWORDS: *Asphota*, *Bhagandara*, *Clitoria ternatea*, *Ksharasutra*, low anal fistula.

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INTRODUCTION:

Fistula in ano is a condition characterised by the formation of a track surrounded by granulation tissue that opens internally into the anal canal or rectum and outwardly to the skin around the anus.^[1] It is referred to as *Bhagandara* in Ayurvedic concepts. *Bhagandara* is one of the *Ashtamahagadas* (eight deadly diseases which are difficult to cure). The incidence of fistula in ano is 8.6 per 100,000 people.^[2] According to the Milligan Morgan classification, low anal fistula is the most prevalent kind of anorectal fistula, in which the track internally opens

below the anorectal ring.^[3] Since the time of Charaka and Susruta, *Ksharasutra* therapy has been characterised as a para-surgical type of treatment for illnesses such as sinuses and fistulas in the surgical discipline of Ayurveda. The plant *Asphota* is included in *Ksharagana* of Ashtanga Hridaya, which is a synonym of *Aparajitha* (*Clitoria ternatea* Linn.).^[4] It possesses *Laghu Ruksha* property and *Katu Vipaka*^[5] along with *Karmas* like *Vedanasthapana* (analgesic), *Dahasamaka* (relieving burning sensation), *Pittasamaka* (reducing the effects of *pitta dosha*), *Raktadoshasamaka* (alleviating the vitiated

Rakta Dosha), *Vranaropana* (aiding wound healing) and *Shothaghna* (anti-inflammatory) properties.^[6] So *Asphota Kshara* can be used for the preparation of *Ksharasutra*.

CASE REPORT:

A 27-year-old male patient came to Salyatantra OPD, Govt. Ayurveda College Tripunithura, Ernakulam, Kerala on 28.09.2022 complaining of pus discharging opening near the anal verge. Four months before the OP visit, a painless swelling appeared over the anal verge, which did not create any issues for him. The swelling showed gradual increase in size and became severely painful after a duration of two weeks, which made him unable sit for even a short span of time. Later it burst spontaneously while travelling on bike, releasing blood mixed pus, which gave him the pain relief. He was then able to sit normally as before the appearance of painful swelling. As he got relief from pain, he did not consult any physician for the same. But after 3 months, he again noticed a swelling at the same site where he had the previous one and turned painful after 10 days. He then consulted in Salyatantra OPD and diagnosed as fistula in ano after clinical examination, thus admitted to the hospital on 28.09.2022 for in patient management using *Ksharasutra* therapy. Local PR Examination was done as on 28.09.2022 is shown in table-1

INVESTIGATIONS:

MRI Perineal fistulography – 20.09.2022

Grade 1 – Linear intersphincteric low anal fistula in ano with internal opening at 2 o' clock.

Blood reports as on 29.09.2022

Viral markers like HBSAG, HIV, VDRL were found negative. Bleeding time and clotting time were 2 min 25 sec and 3 min 45 sec. respectively, Random Blood Sugar was 98

mg%. Total WBC count was found to be 7,700 cells/cu mm. Basophils, Eosinophils, Lymphocytes, Monocytes and Polymorphs are 0%, 6%, 42%, 5% and 47% respectively. ESR was slightly raised (32 mm/hr), Haemoglobin was 15.3 gm %

THERAPEUTIC INTERVENTION:

The patient was managed with *Asphota Ksharasutra* therapy as well as internal medications. *Ksharasutra* made using *Asphota Ksharasutra* has chosen as the mainstay of the treatment which is considered as supreme among para surgical measures mentioned in *Bhagandara Chikitsa*. Weekly change of *Ksharasutra* was done by railroad technique until complete cut through of the fistulous track on 45th day. Unit cutting time and healing time was calculated. Initial length of the fistulous track was measured using a plain thread inserted through the eye of the probe during probing. Medications administered internally has discussed below in Table-2.

Ksharasutra Preparation:

Materials required:

1. *Asphota* (*Clitoria ternatea* Linn.) *Kshara* prepared by burning the whole plant of *Asphota*. The ash obtained is weighed and mixed with 6 times of water and kept undisturbed overnight. On the next day the supernatant is collected and boiled till evaporating whole water content and thus, the dry *Kshara* powder obtained is collected.
2. *Snuhi* (*Euphorbia nerifolia* Linn.) latex collected by incising the stem of the *Snuhi* plant
3. *Haridra* (*Curcuma longa* Linn.) powder.

Method of preparation of *Ksharasutra*

No. 20 Barbour's linen thread is taken as the standard thread for *Ksharasutra* preparation, which was tied though the length of *Ksharasutra* hangers in a

Ksharasutra cabinet equipped with incandescent lamp for drying purpose. It was first coated with 11 coatings of *Snuhi Ksheera* alone, one coating in each day. The next 7 coatings were done using *Snuhi Ksheera* mixed with *Asphota Kshara* and the final 3 coatings using *Haridra Choorna*. After 21 coatings, the *Ksharasutra* has ensured as dried properly. It is then taken out from the hangers and kept in a sterile glass tube with cork.

Application of *Ksharasutra*

Pre operative procedure:

1. The procedure was explained to the patient, and informed written consent was taken.
2. Shaving of perianal region was done
3. Inj. TT –IM in deltoid muscle-left arm done
4. Sensitivity – 2% xylocaine-Intradermal -0.5 ml – right forearm done.

Operative procedure:

The patient was comfortably laid in the lithotomy position. Cleaning of the prepared part with *Triphala Kwatha* was carried out.

Local infiltration anaesthesia was done using 3.5 ml of 2% xylocaine injection (lignocaine hydrochloride 2%). A malleable copper probe after lubricating with lignocaine gel was introduced into the external opening and carefully drawn along the track. The left index finger kept in the anal canal for supporting the movement of the probe towards the internal opening. The probe was brought out of the internal opening and then it was carefully taken out through the anal canal. *Ksharasutra* of suitable length was passed through the eye of the probe and the probe pulled out, to position the thread in the track. The two ends of the thread were tied outside the anal orifice. Sterile surgical pad was applied to the area. T- bandage was done, and the patient was shifted to the post operative ward.

Post-operative measures

Adjuvant therapies:

- Laxatives: To provide easy evacuation of stools, *Triphala choorna* 10 gm with lukewarm water in the evening was advised.
- *Avagahasweda* with *Triphala Kwatha*, twice daily (morning and evening) for 15 minutes was advised.

Table-1:Per rectal Examination (PRE):

Inspection	External opening of the fistula in ano at 2 o' clock position extending about 4 cm from the anal verge. Active Pus discharge present. Surrounding tissue of the external opening found reddish and slightly swollen.
Palpation	Grade I tenderness found at external opening. Cord like induration felt from the external opening towards the anal canal. Palpation of the induration led to slight pus discharge through external opening.
Per rectal examination (P/R)	Normal anal sphincter tone. No tenderness found P/R. While doing P/R, pus discharged from the external opening. Internal opening of the fistula in ano found radial to 2 o' clock position as a dimple.
Examination with a probe	Direction of the fistula in ano found to be radial from the external opening to the anal canal
Proctoscopy	Internal opening visualised at 2 o' clock position. No other abnormalities found.

Table-2: Internal Medications administered in IPD:

Date	Medicines	Dose	Remarks
28.09.2022 to 06.12.2022	<i>Guggulutiktakam Kwatha</i> ^[7]	90 ml two times before food	Aided proper drainage of pus, relief from pain
28.09.2022 to 06.12.2022	<i>Kaisora Guggulu Gulika</i> ^[8]	1 each (500 mg) with <i>Guggulutiktakam Kwatha</i> 90 ml (---) in morning and evening	
28.09.2022 to 06.12.2022	<i>Thriphala Guggulu Gulika</i> ^[9]	1 each (250 mg) in the morning and evening after food	
02.11.2022 to 06.12.2022	<i>Guggulu Panchapala choorna</i> ^[10]	1 teaspoon (5 gm) mixed with honey in the noon before food	Proper healing of cut through wound



Fig. 1: Pre operative preparation



Fig. 2: Ksharasutra after making knot



Fig. 3: Ksharasutra cut through wound



Fig. 4: Completely healed wound

RESULT:

Initial length of the fistulous track was 6.8 cm, which was cut through on 45th day. The cut through wound completely healed by formation of a healthy scar on 69th day. The unit cutting time calculated using the formula total number of days for cut through of the fistulous tract/ initial length of the

fistulous tract is 6.61 days/cm. In the current case, the patient has not reported post procedural issues like severe burning sensation and pain.

DISCUSSION:

Ksharasutra therapy is considered as the best among para-surgical measures used for managing conditions like *Bhagandara*, *Nadivrana* and so on. Here, the mode of action of the treatment modality is explained as a whole considering the following facts regarding *Ksharasutras*- multiple number of coats using medicated substances like *Snuhi* latex, *Kshara* and *Haridra Choorna*, which have proteolytic, tissue cutting, analgesic and anti-inflammatory properties.^[11] The period of constant contact of the thread within the fistulous track and the pressure effect which is exerted by that on cutting the tissues, as an aid in draining the pus, chemical cauterisation effect and the role of pH of the *Kshara* used.^[11] While considering the phytoconstituents, *Asphota* plant has pentacyclic triterpenoids such as taraxerol and taraxerone. It also has the presence of terpenoid, flavonoid, tannin and steroid which may act as antioxidant. Flowers of the plant contains Saponin, Tanin, Alkaloids, Glycosides, Phytosterols, Carbohydrates which possess analgesic and anti-inflammatory activities.^[12-14]

The Unit Cutting Time (UCT) of the *Asphota Ksharasutra*, measured by dividing total number of days required for complete cut through of the fistulous tract by initial length of the tract was found to be 6.61 days/cm. Based on two clinical studies conducted on the efficacy of standard *Apamarga Ksharasutra*, the average Unit Cutting Time of *Apamarga Ksharasutra* was 8.65 days/cm.^{[15][16]} Thus, *Asphota Ksharasutra* has found to be better in terms of Unit Cutting Time on comparing with the Standard *Ksharasutra*.

CONCLUSION:

Ksharasutra made using *Asphota* (*Clitoria ternatea* Linn.) *Kshara* has found to be effective and better in comparison to Standard *Apamarga Ksharsutra* in terms of

Unit Cutting Time and healing of the fistulous tract in a 27-year-old male patient with Grade 1 intersphincteric low anal fistula without causing any complications or side effects during the treatment period.

Limitation of Study:

Even though, to establish this fact, large sample studies could be conducted, in which *Asphota Ksharasutra* should be compared with standard *Ksharasutra* in terms of both objective and subjective parameters like Unit Cutting Time, healing time and others.

Ethical Consideration:

Informed written consent was taken from the patient before publication. Data leading to personal identification including name, address, photographs with unmasked faces were not included in the entire case report.

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