CASE REPORT

Partial Fistulectomy and Guggulu Based Ksharasootra in the Management of Bhagandara (Fistula-in-Ano) - A Case Report

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Abstract:
Ksharasootra is a medicated thread, indicated in ano-rectal disorders particularly in the management of Bhagandara (Fistula-in-ano) in Indian system of medicine. Guggulu based Ksharasootra prepared with Apamarga Kshara (Ash of Achyranthus aspera Linn.), Guggulu (Commiphora mukul Hook.) and Haridra powder (Curcuma longa Linn.) as per the guidelines of Ayurvedic Pharmacopoeia of India (API). In this case report, a patient of Trans-sphincteric, low anal fistula present at anterior aspect of anal canal, was treated with partial fistulectomy followed by Guggulu based Ksharasootra application in remaining part of the tract. The old Ksharasootra was changed with a new one by rail-road technique on weekly interval. The length of thread was measured weekly and noted in the case proforma to assess the unit cutting time (UCT). The fistulectomy wound dressing was done daily with Shatadhaust Ghrita (medicated clarified butter). During the course of treatment patient was performing his job easily and regularly. After two months (Ksharasootra changed for 8 times) tract was cut through with Ksharasootra and fistulectomy wound was healed completely with normal scar without any complication. This case demonstrated the utility of partial fistulectomy and Guggulu based Ksharasootra in fistula-in-ano with early healing as compare to Ksharasootra application without doing partial fistulectomy.

Key Words: Bhagandar, fistula-in-ano, Guggulu, Ksharasootra, Partial fistulectomy.

Introduction
In Ayurveda, Bhagandara (Fistula-in-ano) is considered under the heading of eight major diseases (Ashtomahagada) due to its notorious nature. Anal fistula is part of the spectrum of peri-anal sepsis. It is generally developed after an ano-rectal abscess. Anal fistula causes various symptoms including pain, discharge, itching and social embarrassment. In surgery fistulectomy, fistulotomy, new sphincteric Fistula Tract (LIFT) are available with their own limitations. On other hand, surgery for fistula has always put fear of recurrence and complications like incontinence in mind of treating surgeons. In some cases uncontrolled on bowel and bladder functions may observed after surgery. Sushruta, the father of surgery, described application of Kshara (alkaline ash) in Bhagandara (Fistula-in-ano). Later on Chakrapani and Bhavamishra detailed the preparation and application of Ksharasootra in Bhagandara (Fistula-in-ano).

In this study, a case of anterior low anal trans-sphincter fistula-in-ano having external opening at 1 o'clock and internal opening at 12 o'clock position was treated with Ksharasootra application. The Guggulu based Ksharasootra was prepared as per API guidelines. Snuhi (latex of Euphorbia nerifolia) is one of the content of conventional Ksharasootra which was replaced with Guggulu (Commiphora mukul) and rest of the contents and procedure was followed as per preparation of standard Ksharasootra. In this case Guggulu based Ksharasootra was applied and patient was cured without any complication.

Case History:
A 35 year old male patient visited in Shalya tantra OPD of IPGT&RA hospital, Jamnagar, Gujarat with complaints of perianal pain, pus discharge, constipation and intermittent fever. These symptoms were present since last seven days with disturbed routine. Patient had same complaints before one and half years ago with pus discharge but it was subsided with allopathic treatment like antibiotics and analgesic. Patient was habituated to consume non-vegetarian diet, spicy foods and tobacco. Patient is an engineer and when he was on duty symptoms were aggravated and he had to take some allopathic medicine to get relief.
One external opening at 1 o’clock position just below the scrotum was observed on perineal examination in lithotomy position (Figure-1). After probing from external opening a tract was revealed which seems to be connected with internal opening at 12 o’clock position. It was confirmed by trans-rectal ultrasound (TRUS) and 6 centimeter long linear non-branching fistulous track was delineated in right perianal region with external opening at 1 o’clock position in skin and internal opening at 12 o’clock position just proximal to the anal verge. Routine blood and urine examinations were done and found within normal range. There was no previous history of surgery and other illness. Hence, patient was diagnosed as a case of Bhagandara (Anterior low anal trans-sphincter fistula-in-ano) and patient was admitted in Shalya male ward for further management.

Pre-operative: Written inform consent of patient was taken. Peri-anal part was prepared by doing necessary shaving. Proctolysis enema was given in early morning before operation. Injection T.T. 0.5cc IM and sensitivity test for inj. Xylocaine, intra-dermal was done.

Operative procedure: In O.T., patient was kept in lithotomy position on O.T. table after giving spinal anesthesia. Peri-anal area was painted with Betadine solution and sterile cut sheet was draped. Probing was done from external opening and internal opening was revealed at 12 O’clock position. The excision of the fistulous tract was done from external opening to the level of anal sphincter with help of electric cautery. After that a Ksharsootra was applied in remaining part of the tract. Wound was packed with betadine gauze. Then a chronic fissure bed with tag at 6 o’clock was excised by electric cautery. After proper haemostasis achieved betadine soaked pack was kept in anal canal and T-Bandaging was done (Figure-2).

Post-operative: From next morning, Avagaha swedana (warm water sitz bath) with Panchavalkala decoction was advised for two times daily up to complete wound healing. Diets like green vegetables, fruits, plenty of liquids were advised. Patient was advised not to consume non-vegetarian, spicy and oily food, junk foods, tobacco and alcohol. Patient was recommended to avoid long sitting and riding/travelling. Eranda Bhrishta Haritaki (Terminalia chebula Linn.) powder 5gm with luke warm water at bed time was prescribed to relieve constipation.

Observation and Results:
Patient was discharged next day from hospital and called daily for dressing for initial 7 days. Later on the patient was advised to come on every week for Ksharasootra change. Sitz bath with Panchavalkala decoction and then dressing with Shatadhauta ghrita was done daily. Old Ksharasootra was changed on weekly interval by putting new Ksharasootra in the fistulous tract after applying 2% xylocaine jelly by railroad technique till complete cut through and healing of fistulous tract was achieved. The length of Ksharasootra thread was recorded to assess progress of the cutting as well as healing on every change. The wound became cleaned and healing was promoted with healthy granulation tissue after 15 days (Figure-3). Sitz bath, cleaning with Panchavalkala decoction and dressing with Shatadhauta Ghrita continued along with Ksharasootra change and there was healthy granulation, epithelisation and contraction of wound was observed during weekly assessment as shown in (Figure-4, 5). Total 2 months were required for complete cutting and healing of fistulous tract (Figure-6). The unit cutting time (UCT) of fistulous tract case was 7.5 days per cm.
Discussion:

Acharya Sushruta promoted different treatment modalities to treat Bhagandara (Fistula-in-ano) as per Doshas. According to classic all types of Bhagadara are difficult to treat. \(^9\) Ksharasootra application has been proven for effective and successful management of Bhagandara. The ICMR (Indian Council of Medical Research) has been studied Ksharasootra in fistula-in-ano and concluded better than conventional fistulectomy / fistulotomy with minimum recurrence rate. \(^10\) In this study, Guggulu based Ksharasootra was applied first time under spinal anesthesia and kept in situ. The length of Ksharasootra was noted and found decreased on every change which suggested the cutting of tract. The applied Kshara on thread acts as anti-inflammatory and anti-microbial activity. Alkaline nature of Kshara cauterizes dead tissue and facilitates cutting as well as healing. \(^11\) The pH of Ksharasootra is alkaline which helps to prevents infection in fistulous tract. The cutting is presumed by local action of Kshara and Guggulu during initial 1-2 days followed by healing in rest of the 5-6 days. The Guggulu (Commiphora mukul) is well known for its anti-inflammatory and antibacterial properties which helped in healing. \(^12\)-\(^13\) The turmeric (Curcuma longa) powder minimizes reaction of caustics and helped for healing of tract. \(^14\) Ksharasootra has combined effect of all three drugs (Apamarga Kshara, Guggulu and Turmeric) and said to be unique drug formulation for cutting as well as healing of fistulous tract.

Panchavalkal decoction has cleaning and wound healing properties so it helped to kept wound clean and promoted healing.\(^15\) Cow Ghrita (Clarified butter) is known for an excellent Sneha Dravyas due to its Samskaranuvartana (as like catalyst to increase the potency of another drug) and Yogvahi (synergetic effect) properties.\(^16\) Ghrita has been well emphasized for its wound healing activity due to presence of Vitamin - A which accelerates tissue healing process, epithelialization and skin texture improvement. EFA (Omega - 3 and Omega - 6)
of Ghrita also regulates prostaglandin synthesis and hence induces healing. Patient was examined regularly on every week for progress of the treatment. After two months wound was healed completely with normal scar formation and without any complications.

In case of conventional fistulectomy, the chances of recurrence are very high and in plain Ksharasootra the required time for cut through and healing of wound is more so patients are mentally disturbed with this disease. Hence, to minimize the required time partial fistulectomy along with Ksharasootra application is said to be the best option observed in this case report.

**Conclusion:**
This single case study revealed that long enough anterior fistula-in-ano can be managed by partial Fistulectomy and Guggulu based Ksharasootra. Post fistulectomy wound healed early by cleaning with Panchavalikal decoction and dressing with Shatadhauta Ghrita. As it is a single case study so it require to study in more number of cases for concrete conclusion.

**References:**


