



## EFFECT OF GUGGULU KSHARA SOOTRA IN BHAGANDARA W.S.R FISTULA -IN- ANO

<b>Dr. Sukrant Sharma*</b>	M.S (Ayu) Assistant Professor, Jammu Institute Of Ayurveda And Research Nardini, Jammu, India *Corresponding Author
<b>Dr. Ashanka Bhardwaj</b>	M.D.S Tutor, Department Of Oral Pathology, Indira Gandhi Govt. Dental College, Jammu
<b>Dr. Mayur Uttam Pharande</b>	M.S (Shalyatantra) FMAS Pharande Surgical Hospital And Research Centre Ring Road Phaltan, India
<b>Dr. Sarabjeet Kour</b>	PG Scholar, Jammu Institute Of Ayurveda And Research Nardini, Jammu, India

### ABSTRACT

Acharya sushruta stated Bhagandara as one among the eight mahagadas. It started as deep rooted pidika (boil) around the guda within two angula circumference and forms into a track with an external opening in the skin of peri-anal region and an internal opening in the modified skin or mucosa of anal canal or rectum lined by unhealthy granulation tissue and fibrous tissue. Bhagandara is disease difficult to treat by surgical or medico surgical treatment. It is considered so because of its location and nature. By surgical management there is chance of recurrence but by the usage of kshara, there is less chance of recurrence. Ayurvedic classics have mentioned the utility of kshara and kshara sootra in the management of bhagandara. According to classics, snuhi kshira is used in the preparation of kshara sootra. Due to the non availability of snuhi throughout the year and the time of collection is in adana kala particularly in shishira rutu. Due to this fact, we should collect the kshira in February- march (shishira rutu). Hence as an alternative to snuhi kshira, guggulu is used as a material to increase the tensile strength of thread and therapeutic utility as well. It is single blind clinical study ; wherein 20 patients of bhagandara were selected for the study from S.D.M Ayurveda hospital, udupi. It showed that guggulu kshara sootra is easy to prepare, has good binding properties, it can be preserved and used for long duration and very efficient in the management of bhagandara (fistula in ano).

**KEYWORDS :** Guggulu Kshara Sootra, Bhagandara, Fistula In Ano.

### INTRODUCTION

Ano-Rectal disorders are one among the most common disorders affecting the general population. Almost 200-250 patients visit Shalya tantra OPD at S.D.M. Ayurvedic hospital Udupi every month. 'Bhagandara', a disease explained in the Ayurvedic classics is a disease characterized by tearing of the tissue in the perineum due to formation of the tracts. The disease may well be compared with Fistula in ano affecting the perianal area.<sup>1</sup> Fistula in ano is a chronic disease characterized by formation of one or more tracts, with openings in the perianal region having connection with anal canal or rectum. Bhagandara has been recognized as a difficult surgical disease in all the ancient medical texts, starting from sushruta (800-1000BC) to Hippocrates (450 BC) and also by the present day surgeons due to its complexities and high incidence of recurrence. Fistula in ano causes very much discomfort to the patient due to pain and foul smelling discharge, which may create problems in one's routine work and disturb his normal living. As the disease is located in anal region it is more prone to infections, thus taking long time to heal. The operation for this disease is designed from time to time to suit the need of the days. The present trend in the treatment of fistula-in-Ano lies in the radical excision of the tract with removal of a portion of the surrounding tissue. No doubt some fistulae respond to surgery satisfactorily, but the overall picture of response is disappointing. Operative procedures often lead to complications like faecal incontinence and recurrence which may even result in psychological breakdown. So it is important to find a technique that is safe, minimally invasive, and giving satisfactory results. Great Indian Surgeon Sushruta narrated in his sushruta samhita the use of Ksharasutra for treatment of Bhagandara (Fistula-in-Ano). Many studies have been done by Ayurvedic surgeons recently with encouraging results of the treatment of fistula in-Ano by using of Kshara-Sutra.

Ksharasutra has been described in the ancient books of ayurveda not only for Bhagandara (fistula-in-ano) but also for that condition which demand excision of over grown tissues e.g. Piles, polyps, warts and also non healing chronic sinuses and ulcers where debridement is an essential factor to facilitate healing. The introduction of ksharasutra into the fistulus tract is capable of dissolving the fibrous tissue and ultimately draining it out creating a healthy base for healing. Its gradual and sustained chemical action not only removes the debris from the site of fistula but it also helps in encouraging fresh healthy granulation tissue. So a kshara sootra using guggulu as base will be used in this study as it is available in bulk, it has binding properties, can be preserved and used for long duration. Hence this study aims to find the effects of guggulu kshara sootra in Bhagandara (Fistula in ano).

### OBJECTIVES OF THE STUDY

- A detailed Conceptual study of Bhagandara (fistula-in-ano).
- To evaluate effect of guggulu kshara sootra in the management of Bhagandara (fistula-in-ano).

### METHODOLOGY

This clinical study portion provides a study of 20 patients of bhagandara treated in ano-rectal speciality unit of S.D.M college of Ayurveda and Hospital, Udupi, Karnataka with type of guggulu kshara sootra. Study design: A single blind within group clinical study with pre-test post-test design.

Selection of Patient- A clinical study was planned in ano-rectal clinic of Department of P.G. Studies in Shalya Tantra, S.D.M. College of Ayurveda and Hospital, Udupi, Karnataka. Management of fistula-in-ano with Kshara Sootra therapy has been popularized in this institute. The selected, patients were examined thoroughly as per the case sheet designed for this

study. Among them those who came with a primary complaint of abscess, discharge, itching, pain in the perianal region were selected for this study. The effect of guggulu kshara sootra was studied on 20 patients.

### REQUIRED EQUIPPMENTS AND INSTRUMENTS

The following equipments and instruments are usually required during application of Kshara Sootra

1. Lithotomy Table This table is very useful to put the patient in lithotomy position for examination as well as for application and changing of Kshara Sootra.
2. Spot Light This is necessary for proper focusing of the light on affected part during application and examination.
3. Dressing Trolley This trolley contains following instruments and materials:- Sterile cotton, gauze pieces, sterile drapes etc. Instruments tray containing with different types of probes, artery forceps, knife, scissors, various sizes of proctoscope etc. Kshara Sootra tray with Guggulu Kshara Sootra tubes, Tray with sterile gloves of different sizes. Sterile lubricant jelly.
4. Instruments Box: The following specially designed instruments are necessary for management.

Vakra Eshani (Curved probe with eyelet), Vakra Eshani-Ara Shastra Mukhakriti (Curved probe with notch), Eshani (Malleable/ Non-malleable straight probe), Sutra-Niyojini Shalaka (Thread carrier), Artery forceps (straight and curved), Scissors (Straight), Pile holding forceps, Proctoscope of various sizes, Guggulu Kshara Sootra sealed tubes and Plain cotton thread.

5. Ushnodaka Avagaha Yantra Patients are instructed to sit in this tub and to take warm water sitz bath after the application of Kshara Sootra to alleviate pain and inflammation.

### EXAMINATION OF PATIENT -

Each case was thoroughly examined and investigated by detailed proforma designed for the present clinical study on Bhagandara. Each patient was examined under following headings.

1. History of the Patient Complete history of the patients with presenting complaints like discharge, onset of pain, duration and bowel habit were noted. Patients with associated diseases of tuberculosis, diabetes, hypertension, urinary, cardiac and neurological diseases were excluded. History of previous treatment particularly previous surgery, number of operations, type of operation, family history occupation, personal history and dietetic habits were taken.
2. Systemic Examination: Each patient was examined systematically by different systems like digestive, cardiovascular, respiratory, nervous and genitor-urinary. If any system was found diseased, the specific investigations were carried out and confirmed to treat the first.
3. Local Examination It was done under following headings:
  - a) Inspection First patient was made to lie down in lithotomy position. Then the condition of skin near fistula, inflammation, induration, discharging sinuses, their external openings, clockwise position, number of sinuses, previous operated scars, discoloration of adjacent area and any other ano rectal diseases were noted.
  - b) Palpation Local temperature, tenderness, induration, fluctuation, consistency of pus, fistulous tract and its direction etc, were noted by palpation.
  - c) Digital Rectal Examination Any fissure, thrombotic pile, malignancy, indurated dimples, tone of sphincter, any cavity, tenderness, internal openings with their positions and prostate in males were noted by digital examination.
  - d) Instrumentation

- i) Probing It is an important examination which provides accurate knowledge regarding - The track, whether it was complete or not - The extent of the track - The direction of the track - Position of the internal opening - Relation of the internal opening to the anorectal ring - Relation of fistulous tract with the sphincter muscles. - Relation of the fistulous tract with levator muscles. - Branching of the tract - Whether the track had extended to the opposite of the midline. - Relations if any, to the neighbouring bones. Soft, malleable, curved probes were carefully passed through the external opening with care, with one finger in the rectum guiding its advancement. It is necessary to have the cooperation of the patient during examination and also care should be taken to avoid the creation of false tracks.
  - ii) Proctoscopy It reveals presence or absence of pile masses, growth or ulcer, condition of rectal mucosa, location of internal opening etc was noted.
  - iii) Sigmoidoscopy It may help distinguish between a rectal and anal canal opening. It allows examination of the rectal mucosa in order to determine the presence of an underlying proctocolitis or any rectal tumour should be ruled out.
  - iv) Colonoscopy Suspicion of colonic disorders like ulcerative colitis, Crohn's disease, any malignancy etc. were ruled out with colonoscopy.

### INVESTIGATIONS -

- a) Routine Blood for T.L.C., D.L.C., Hb, ESR, FBS, blood urea, serum creatinine, HIV and HbSAg, urine routine and microscopy, stool for ova, cyst and occult blood.
- b) Specific It consists of pus culture and sensitivity test and tissue biopsy if necessary.
- c) Radiography Fistulogram, Barium enema, Chest X-ray and Plain X-ray.
- d) Ultrasonography (Endoanal/Endorectal Ultrasonography and Transcutaneous Perianal Ultrasonography)
- e) CT Scan and MRI Scan
- g) Instillation of hydrogen peroxide and povidone - iodine It is the simplest method for identification of internal opening. First inject hydrogen peroxide and povidone iodine or milk or diluted ethylene blue into the external opening. Then the effervescence is observed at the internal opening within the anal canal. It is essential step before performing surgery.
- h) Some other tests were done in the patients who were suspected to have tubercular focus somewhere in the body. These tests include Mantoux test, sputum for acid fast bacilli etc.

### CRITERIA FOR SELECTION OF PATIENTS

Patients with diagnosed case of Bhagandara (fistula-in-ano). Inclusion criteria: Age between 20-70 years. Patients of either sex taken.

Patients suffering from systemic diseases like diabetes mellitus, hepatitis and HIV infection. Exclusion criteria: Fistulae developing secondary to diseases like tuberculosis, ulcerative colitis, crohn's disease, malignancy etc.

### ASSESSMENT CRITERIA

#### 1. UNIT CUTTING TIME U.C.T. =

Total no. of days taken to cut through initial length of track in cms

Pain- 0-No pain 1- Mild . 2- Moderate. 3- Severe. 4- Unbearable.

#### 2. BURNING SENSATION

0-No burning 1-Little localized and some time feeling of burning sensation. 2-Moderate localized and some time feeling of burning sensation 3-Continuous burning disturbing sleep.

**3. ITCHING-**

0-No itching at any time. 1-Negligible itching with 10-12 hrs gaps. 2-Occasional sensation of

itching with 4-6 hrs gaps. 3-Frequent sensation of itching with 2-3 hrs gaps. 4-Frequent sensation of itching with 15-30 min gaps.

**4. BOWEL MOVEMENT-**

0- one to two soft motion per day 1- one to two motion per day hard stool 2-one motion per day straining required 3-episods of no motion whole day.

**5. TENDERNESS-**

0-No tenderness 1-Tenderness after squeezing 2-Tenderness after touching with pressure

3-Tenderness touching with finger 4-Tenderness just touching with soft object.

**6. LENGTH OF THE TRACK-**

Length of the thread is measured at the time of changing the thread.

**7. DISCHARGE-**

0-No discharge 1If wound wets ½ X ½ cm gauze piece (mild) 2 If wound wets 1 X 1 cm gauze piece (moderate) 3If wound wets more than 1 cm (severe) 4 continuous and profuse discharge.

**8. DISCOLORATION-**

0-No discoloration 1-mild brown discoloration. 2-mild blackish discoloration

3-deep blackish discoloration

Presentation of data's By above said criteria, disease was established. It is a single blind clinical study with pre test and post test design and in this guggulu kshara sootra was used to treat Bhagandara.

**RESULTS**

All 20 patients of fistula-in-ano have been analysed for age, sex, habitat, socioeconomic status, Doshik Prakriti, type of Bhagandara, type of fistula, chronicity of disease, number of external openings, initial length of the fistulous track, unit cutting time, clinical findings etc

1. Unit Cutting time in relation to age group :- Average unit cutting time was studied in different age groups in cases. The minimum average unit cutting time was 8.06 days/cm in under the age group of 41 – 50 years.
2. Unit cutting time in relation to sex group :- This analysis shows that maximum U.C.T. noted in female was 8.81 days/cm and in male 8.14 days/cm.
3. Unit cutting time in relation to Prakriti :- Unit cutting time was calculated for different types of prakriti. It shows Vatapittaja prakriti patients were having minimum U.C.T. i.e 7.94 days/cm. While maximum U.C.T. i.e 9.41 days/cm was reported in vatakaphaja prakriti patients was 8.15 days/cm.
4. Unit cutting time in relation to Bhagandara :- The analysis shows that minimum U.C.T. was 7.94 days/cm in parisravi and maximum U.C.T. was 9.66 days/cm in Arshobh agandara. In riju Bhagandara the U.C.T. was 8.38 days/cm.
5. Unit cutting time in relation to type of Fistula –in-ano :- Average U.C.T. was analysed in different types of fistula –in – ano in which maximum U.C.T. was found 9.49 days/cm in submucous fistula. Minimum U.C.T. was reported intersphincteric i.e 7.69 days/cm.
6. Unit cutting time in relation to chronicity of disease :- Minimum average U.C.T. was 8.09 days/cm within 2-3 years of illness and maximum average U.C.T. was 8.76 within 1-2 years of illness.
7. Unit cutting time in relation to Previous surgery :- Average

U.C.T. in operated cases was 7 days/cm and non operated cases was 8.32 days/cm.

8. Unit cutting time in relation to initial length of track :- With initial length of track 1-5 cm the average U.C.T. was 8.52 days/cm. whereas with initial length of track 5-10 cm average U.C.T. was 7.46 days/cm.
9. Total average unit cutting time :- Finally total average U.C.T. was evaluated. The analysis shows that average U.C.T. was 8.31 days/cm.

Based on weekly assessment the results were recorded. The clinical observation like pain, burning sensation, itching, bowel movement, tenderness, discharge, discoloration were analyzed. The results obtained are described under the separate headings. The results of various subjective and objective parameters are given below.

**SUBJECTIVE PARAMETERS :-**

1. Mean score of pain :- The mean score of pain was 0.65 before the treatment which reduced to 0.3 after the treatment.
2. Mean score of burning sensation :- The mean score of burning sensation was 0.6 before the treatment which reduced to 0.2 after the treatment.
3. Mean score of itching sensation :- The mean score of itching sensation was 0.7 before the treatment which reduced to 0.15 after the treatment.
4. Mean score of bowel movements :- The mean score of bowel movements was 0.9 before the treatment which reduced to 0.2 after the treatment.
5. Mean score of tenderness :- The mean score of tenderness was 0.75 before the treatment which reduced to 0.25 after the treatment.

**OBJECTIVE PARAMETERS :-**

1. Mean score of discharge :- The mean score of discharge was 1.2 before the treatment which reduced to 0.15 after the treatment.
2. Mean score of discoloration :- The mean score of discoloration was 0.85 before the treatment which reduced to 0.15 after the treatment.

**CONCLUSION**

1. Guggulu niryasa has a very good binding property and can be used for long duration.
2. It is Economical, problems of preparation of guggulu kshara sootra is minimized.
3. By the usage of Guggulu Kshara sootra most subjective symptoms were relieved satisfactorily.
4. The method was found effective in all patients with low anal fistulae.
5. complications like anal incontinence, stenosis were not observed during or after the treatment of fistula with Guggulu kshara sootra.
6. No recurrence of fistulae were observed during the 6 months follow up period.

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