



RESEARCH ARTICLE

BASIC FUNDAMENTALS OF KSHARSUTRA THERAPY WITH SPECIAL REFERENCE TO FISTULA IN ANO

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ABSTRACT

Fistula-in-ano is also known as Bhagandar according to Ayurveda, In- general, Fistula can be defined as a communicating tract between two epithelial surfaces commonly between a hollow viscous and the skin (external fistula) or between two hollow viscera (internal fistula). The Fistula-in-ano can be classified into two categories viz. low level fistula and high level fistula. According to Ayurveda types are as per their morphological structure i.e. Shatponaka, Ushtrageeva, Parisraavi, Shambukavarta, Unmargi. Ksharsutra application is the best method of treatment in the management of such condition and can be used based on condition or degree and severity of the disease. It can be successfully practiced in present days as it is very cost effective.

INTRODUCTION

In- general, Fistula can be defined as a communicating tract between two epithelial surfaces commonly between a hollow viscous and the skin (external fistula) or between two hollow viscera (internal fistula). A boil at peri-anal region if not treated properly can burst & convert into discharging track and is named as - Bhagandara. Fistula-in-Ano is an inflammatory tract which has an external opening (secondary opening) in the perianal skin and an internal opening (primary opening) in the anal canal or rectum. This tract is lined by unhealthy granulation tissues and fibrous tissues.

Causes of fistula –in –ANO

- 1) Perianal abscess
- 2) Ulcerative colitis
- 3) Crohn's disease
- 4) Tuberculosis
- 5) Colloid carcinoma of the rectum
- 6) HIV infection

As per Ayurveda Predisposing Factors (Hetu)

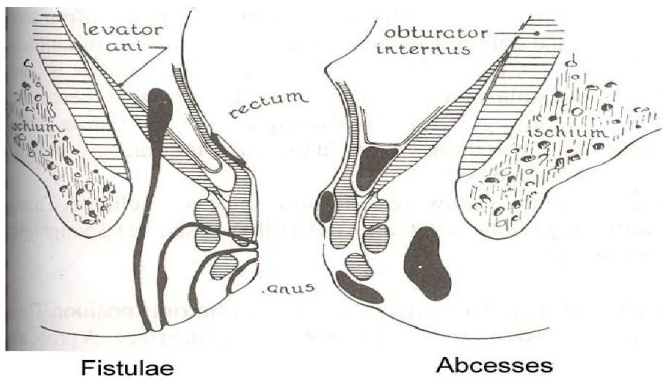
1. Apathya sevan
2. Krimi i.e. strepto coccus & E. coli.
3. Traumatic abrasions within the anal region due to Foreign bodies or Faeco- lith (hard stool)
4. Overindulgence in Sex
5. Pravahan (Bacillary dysentery)
6. Squating or awkward sitting posture (Utkatasan)
7. Horse riding (over motor bike or car driving)

Classification of fistula –in –ANO

A. Low level fistula

They open into the anal canal below the ano rectal ring. They are further subdivided into

- a) Subcutaneous
- b) Submucosal
- c) Intersphincte
- d) Transsphincteric
- e) Suprasphincteric type



B. High level fistula

They open into the anal canal at or above the ano- rectal ring
They are further subdivided into

- Extrasphincteric or Supra levator type
- Transsphincteric (which may be seen in low variety)
- Pelvi- rectal fistula

Types of Bhagandara done according to their characteristics by

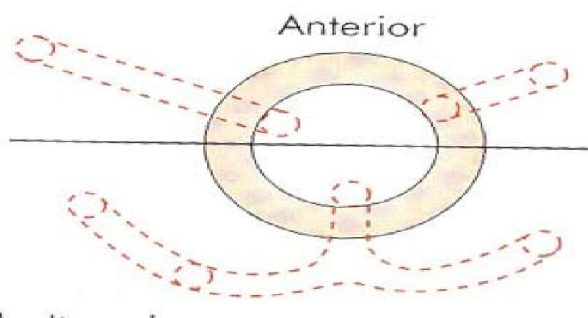
- Causative vitiated doshas,
- Consistency of discharge,
- The smell,
- The number of openings and their course
- Anatomical appearance.

Types of Bhagandara

- Shatponaka (Vataj) - Fistula having multiple openings
- Ushtragreeva (Pittaj) – Fistula resembling the ‘the neck of camel’ i.e. curved
- Parisraavi (Kaphaj) - Fistula having big cavity & which discharge profusely.
- Shambukavarta (Sannipataja) – Fistula resembling with ‘horse pedal
- Unmargi (Kshataj) – Fistula caused by trauma

Good Sall’s Rule

Fistulas whose external opening lie in relation to the anterior half of the anus travel a radial path & those with the external opening in relation to the posterior half travel a curved path & open at a single opening at midline posteriorly.



Clinical features

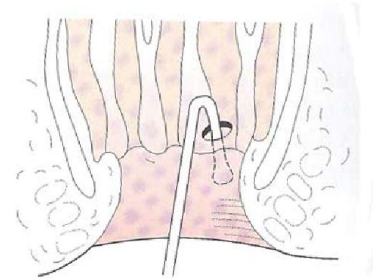
- Recurrent discharging boil around perianal region (More common is solitary fistula with an external opening within 3.7 cm of anus)
- New abscesses/ interconnected to the previous one to form multiple fistulae.-Tuberculosis.
- Granulation tissues may be seen pouting out from the mouth of the fistula. Indurations of the skin and subcutaneous tissues around the fistula.
- Tenderness, Painful defecation & Fever may be present due to suppuration.

Prodromal Features

- Pain at anal region after defecation
- Itching and swelling around peri anal region
- Suppurative - induration (Abscess formation) at peri anal region
- Associated with Pain & Burning sensation.

Examination

- Probing – This is done with the help of specially designed Probes. The direction and depth of the fistula, presence of any foreign body inside the tract, its communication with any hollow viscus and nature of discharge is analyzed by this probing technique.
- Examination of discharge- In this Bacteriological examination (Pus culture & sensitivity) and Microscopic examination (sulphur granules in case of actinomycosis) is done.



Retrograde probing of an anal canal sometimes reveals the internal orifice of the fistula

- X –ray examination- Straight X –ray may show a sequestrum & Osteomyelitic changes of the bone or any concealed foreign body. Whereas Injection of radio – opaque fluid (lipiodol or hypaque) into a fistula commonly known as Fistulograms will indicate the cause by delineating its course.
- General examination- Examination of draining lymph nodes, proper systemic examination of the loin area, the spine, ribs, the kidneys (to rule out koch’s/cold abscess), Per rectal digital/ manual examination followed by Proctoscopy & at the same time in case of multiple fistulae perineum, scrotum & lower urinary tract should be thoroughly examined.

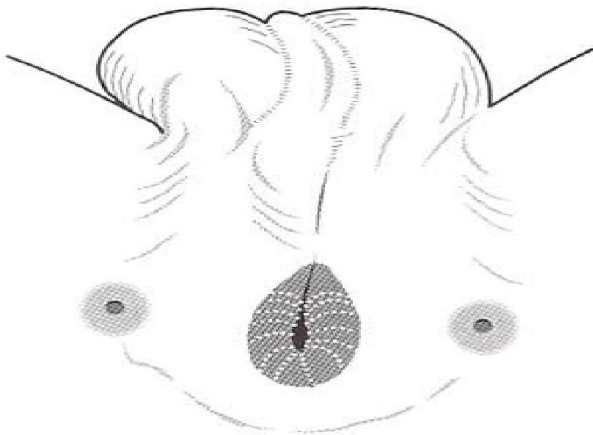
Horse shoe Fistula: Fistulotomy

Patient is placed in Lithotomy position. A probe is inserted through the fistula track to confirm its depth & direction. Then pointed fistula director is introduced through the external opening and its tip comes out through the internal opening. Now, the corresponding track is laid open with the knife followed by 1) either scrapping of the unhealthy granulation tissues on the wall of the fistula or 2) the whole track with the fibrous tissue is excised. The cavity is packed with roller gauze wrung with antiseptic solution. Some surgeon prefer split skin graft of the wound resulting from fistulotomy.

Treatment of High Level Fistula

1) Supra levator fistula:

Supra levator fistula is mostly secondary to Crohn's disease or Ulcerative colitis or Carcinoma of rectum or foreign body. This requires treatment of primary condition & the fistula is ignored. Any attempt to open the fistula will cause incontinence. Transsphincteric fistula with a perforating secondary tract



Method- 1

In this case there is almost always a low fistula & if care is not taken while inserting probe-pointed director, the director will go into the high secondary track & if passed hard will open into the rectum above the ano-rectal ring transforming the condition into a high rectal fistula. In this type of fistula, the lower tract is opened as usual and the upper tract opening is made wide with scraping the high fistula with Volkmann spoon. The upper tract will heal by itself along with the low fistula.

Method- 2

Gabriel's two stage operation

a. Stage – 1

Here also, the lower part of the track is treated by fistulotomy. Then a Seton of heavy black silk or rubber band is passed round the deeper part of the track. This will include intact fibers of the sphincter and the anal canal mucous membrane. The silk tied loosely outside and kept in situ for two weeks. This stimulates fibrosis adjacent to the sphincter muscle.

b. Stage – 2

In the second stage, after 6 weeks, the remaining part of the track including the fibers of the sphincter muscles incorporated within the tie is excised. Fibrosis, from the previous operation, prevents retraction of the freshly cut sphincteric fibers, so that incontinence is avoided. Instead of passing the silk, a stainless steel wire may be passed around the deeper part of the track. After two weeks, the knot is gradually tightened during subsequent dressing. The wire cuts through the sphincteric muscle but the sphincter will not gape as fibrosis has already developed. Healing occurs in parts as the new portion is cut and the old portion heals.

Seton technique

It is an outmoded form of treatment in which a thread is passed through a pinch of skin and tied in a loop. This acts as a counterirritant to pain elsewhere & produces a running sore useful for the drainage of harmful materials from the body.

Ayurvedic Management

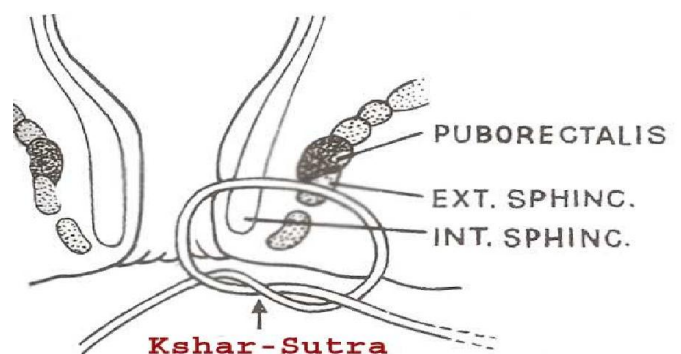
- If boil is associated with indurations, then it should be treated like Vranshoth (abscess) i.e. incision & drainage should be performed under aseptic precautions.
- If boil has already burst, then after confirmation of its connection with anal canal Nadi- bhedan karma (resembling Fistulotomy) with prior probing is done followed by excision of tract or scrapping of unhealthy surrounding track.

Tract – Partially fibrosed or too long (very high level fistula)

- 1) Guda-purana (injection of medicated oil through the external opening) with saindhavadi oil/ trivritadi oil etc.) is done for 3 to 4 days
- 2) Vran-shodhan varti (medicated thread pack) is kept inside the track to make it open or patent followed by ksharsutra procedure

The dressing of wound is done with medicated oil to promote healing and to counter the post operative pain.

For pain relief patient is asked to take Sitz bath with lukewarm medicated oil or even it can be done with warm water (Ushnodak avagahan)



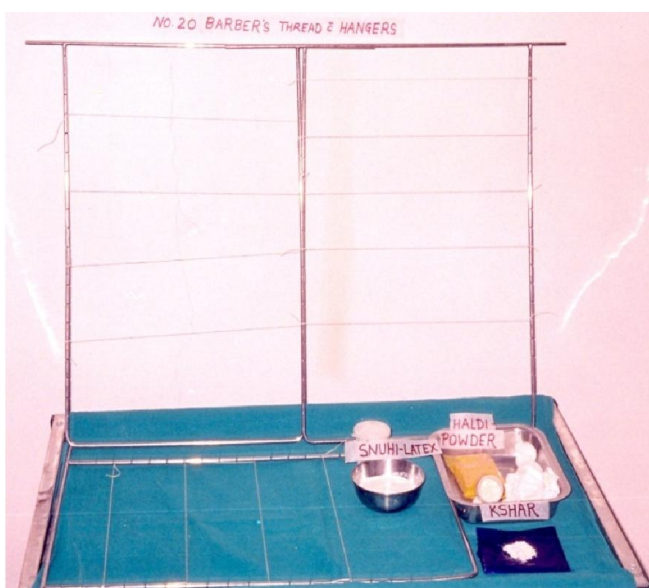
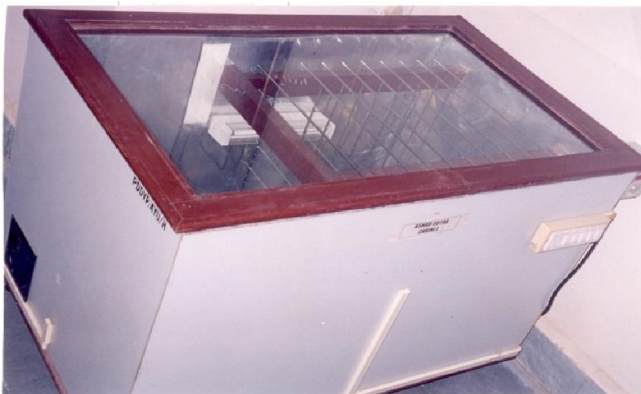
Fistula effectively treated with the help of Kshar sutra ligature technique.

Advantages of Kshar sutra Treatment

- Most effective and Safe with high cure rate
- Cures all type of fistulas
- Early ambulation
- Reduces hospital stay
- Patient can get rid of post op. daily painful dressing
- Cost effective
- Avoids incontinence and bleeding
- Avoids anal stricture & structural deformity
- Usually can be performed without anesthesia (specially low level fistulas)
- Comparatively very low recurrence
- Can be done even in associated systemic disorders like Tuberculosis, DM, HT, Anaemia, IHD, Paraplegia, Crohn's disease, Colitis & HIV patients.

Composition of kshar sutra

1. Surgical Barber line (thread) no. 20
2. Fresh latex of Snuhi (Euphorbia Neriforolia)
3. Specially prepared Alkaline Ash of Apamarg (Achyranthus Aspera)
4. Fine dried powder of Turmeric (Curcuma Longa)



Preparation of Thread (Ksharsutra)

- An Alkaline powder (kshar) is made from the plant Apamarg having PH between 8 to 9.
- Cotton thread tied on specially designed hangers with latex of Snuhi is coated on it and allowed to dry in specially designed cabinet provided with ultra violet radiation for sterilization.
- The thread is kept 12 inch long & is sealed in glass tube or in plastic pouches with aseptic precautions.
- The order of 21 coatings is as follows-

1	Snuhi latex	11
2	Snuhi latex + Kshar	7
3	Snuhi latex + Turmeric	3
Total		21

Application of Kshar sutra

- Proper pre- operative measures like preparation of part, shaving and bowel preparation (enema) is given.
- Reconfirmation of daignosis & Proctoscopy is done in the ward.
- Lithotomy position is given to the patient.
- Anesthesia depends on patient's fitness & conditions.
- With specially designed probe and aseptic precautions insertion of kshar sutra from external opening to the internal opening coming from anal verge & tying loose ends like Seton technique.
- Dressing with medicated oil.

Weekly changing of thread is advisable by 'rail-road' technique

Mode of action

The combination helps in debridement and lysis of the tissues, antifungal, anti bacterial and anti inflammatory activities. Another potential action for the chemical component is to destroy residual glands epithelium. Simultaneous cutting and healing of the fistula track occurs. avoids recurrence and sphincteric complications which can cause incontinence. (In simple way if we give pressure to wire on ice block it passes through it but doesn't divides the ice. Have good cosmetic results. The unit cutting time is approx. 0.85 cm. As per modern view, this acts as a counterirritant to pain elsewhere & produces a Running sore which proves useful for the drainage of harmful materials from the body.

Do's & Don't's (Pathyapathya)

- After Kshar sutra procedure patient is asked to follow the below mentioned instructions To have balanced (easy to digest) diet.
- To avoid Heavy meals.
- To avoid suppression of urge and Constipation.
- To regularize the food and bowel habits.
- To avoid cold beverages, Alcohol and Smoking
- Note: All the above mentioned factors are Responsible for Agnimandya and can vitiate the vaat dosh.
- To avoid Ratri- jagaran & Day time sleep.
- No heavy exercise.

- No (over) sex indulgence.
- No horse riding (or motor bike/ car- long drive).
- To control anger or emotions.
- To maintain the local hygiene.
- To avoid long time or awkward sitting posture

Conclusion

The most important and primary intention behind the management by Ayurvedic method is to relieve the pain which provides relaxation of sphincters, further it allows healing of fistula-in-ano. Therefore pain management and healing of track has got primary significance in the management of fistula in ano by pacifying vitiated Apanavata which can be achieved with selection of either Invasive or Non-invasive methods. Pain management and healing of fistula through this procedures not only helps in healing of fistula but also avoids further recurrence. This can be attained by correction of the vitiated Vata and Pitta doshas, as these two are basic factors are involved in manifestation of the disease. In this consideration various Non-invasive and Invasive methods were described by different Acharyas in Ayurveda. The main non-invasive methods are Aushadha chikitsa (administration of drugs) and Basti therapy (medicated enema). Other invasive methods are Kshara karma, Ksharsutra application and Agnikarma (cauterization). These methods of treatment can be used based on condition or degree and severity of the disease. Ksharkarma which explained at various contexts in the classics of Ayurveda can be implemented in the management of diseases with caution and can be successfully practiced in present days.

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