



Effective Management Of Bhagandara (Fistula In Ano) With Nimba Ksharasutra – A Case Study

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Abstract: Anorectal disorders are painful, highly discomfort condition in perianal region which may hamper daily routine life. *Bhagandara* (Fistula in ano) is an infected tract lined by unhealthy granulation tissue connecting the anal canal or rectum to the skin around the anus. When anal glands are infected it leads to anorectal abscess formation which burst open to form fistula in ano. In contemporary medical science majorly fistula in ano are treated surgically through Fistulotomy, Fistulectomy and LIFT (The Ligation of Intersphincteric Fistula Tract) etc. Every procedure includes their own limitation with considerable rate of complication and recurrence. Ayurveda is well known for the treatment of *Bhagandara* with *ksharasutra*. *Nimba Ksharasutra* has smearing of *Snuhi ksheera*, *Nimba Kshara*, *Haridra*, to assist every stage of healing. Here a case diagnosed with perianal abscess was operated for incision and drainage which later confirmed fistula in ano by probing the tract which was 3.2 cm in length, for which *Nimbaksharasutra* was ligated, every 7th day *Nimbaksharasutra* was changed by rail road method till the complete cutting of the tract. Assessment of pus discharge, pain, itching, tenderness and length of the tract was done in every follow up. Significant improvement was observed in symptoms, including pain reduction, decreased discharge, and improved wound healing. The fistula tract showed complete closure by 4 weeks, with no recurrence. *Nimbaksharasutra* offers a promising, minimally invasive, and cost effective treatment option for *Bhagandara*, with minimal or no recurrence also significant improvement in symptoms and quality of life.

Keywords:- *Nimbaksharasutra*, *Bhagandara*, Fistula in ano, Ayurveda.

I. INTRODUCTION

Bhagandara is one among *Ashta Mahagada*¹ stated by 'Acharya Sushruta'. The literal meaning of *Bhagandara* is 'Darana' in *Bhaga*, *Guda* and *Basti pradesha*, which means splitting up or piercing up of perianal region. Acharya Sushruta mentioned *Abhinna* (i.e pre-suppurative stage) is *pidaka* and *Bhinna* (i.e Suppurative stage) is *Bhagandara*² which corresponds to anorectal abscess burst open and forms fistula in ano. *Bhagandara* can be clinically co-related to Fistula-in-ano as described in modern medical science.

The prevalence rate of fistula-in-ano is 8.6 cases per 1 lakh population. The prevalence in men is 12.3 cases and in women, 5.6 cases per 1 lakh population³. The mean age of patients is 38 years. Prevalence peaks between 20 to 40 years of age⁴.

Fistula-in-ano is a communicating track, lined by unhealthy granulation tissue which opens superficially on the skin around the anus and deeply in the anal canal or rectum with intermittent pain, itching and pus discharge in perianal region. Among the patients diagnosed as anorectal abscess one third of patients undergoing incision and drainage will later develop a fistula. 30 to 70% of patients will already have fistula present on examination⁵. Risk factors for fistula development includes obesity, diabetes, hyperlipidemia and a sedentary lifestyle⁶.

In contemporary medical science most fistula in ano are treated surgically through variety of different procedures depending on external and internal sphincter involvement and location of fistulous tract such as Fistulotomy, Fistulectomy, LIFT⁷ (The Ligation of Inter-sphincteric Fistula Tract), Endorectal advancement flap, Fibrin Plug Glue⁸ etc

Every procedure includes their own limitation with considerable rate of complications like incontinence, deformity and recurrence. Despite a range of treatment modalities, tremendous advances and development in modern surgery the options are limited to their effectiveness and prognosis is also not satisfactory.

Acharya Sushruta describes various treatment modalities such as *ksharakarma*, *agnikarma*, *shashtra karma* etc⁹. Ayurveda is well known for the treatment of *Bhagandara* with *ksharasutra*. It is a medicated thread coated with drugs having *kshara* properties. *Nimba* (*Azadirachta indica*) is also one of them, due to its *krimighna*, *bhedana*, *vranshodhana* and *kshariya* property, which helps in debridement of the Fistula tract, removing the unhealthy tissues and promotes healing. *Snuhi* and *Haridra* have antimicrobial properties, which help in reducing infection, inflammation and pain. The *NimbaKsharasutra* also acts as a draining medium, allowing any accumulated pus or fluid for adequate drainage. Over time, the healthy tissues regenerate, and the tract gradually closes and heals.

II. CASE REPORT

A 30-year-old male presented with complaints of swelling associated with pain near anal verge with intermittent fever since 1 week.

History of present illness

Patient was apparently healthy 1 week back, and then he noticed swelling on left gluteal region near anal verge associated with pain. For which he consulted local doctor and took conservative management. As he did not get complete relief and condition recurred therefore he came for further treatment.

History of past illness

Not K/C/O Diabetes, hypertension, thyroid disorder or any other medical disease.

Surgical History – Underwent Anorectal surgery 10 years ago

Family History - Nothing significant

Personal History

- Appetite : Normal
- Bowel : Constipated, Once a day
- Micturition: 4-5 time a day
- Sleep : Disturbed
- Habits : No any.

Examination of the patient

General examination

- Pallor : Absent
- Icterus : Absent
- Cyanosis : Absent
- Clubbing : Absent
- Oedema : Absent
- Lymphadenopathy: Absent

Vitals -

- BP : 110/70 mm of Hg
- Temp : Afebrile, 96.2°F
- Pulse : 84bpm
- Respiratory Rate: 16 cycles/min

Local Examination**INSPECTION**

- Position: Oval Swelling at left anterior gluteal region approx 3 cm away from anal verge
- Surrounding skin: Brownish red in colour

PALPATION

- Tactile : Local Rise in temp.
- Tenderness: Present
- Induration : Present

Digital rectal examination – Sphincter tone - spasm with tenderness

Proctoscopy – Congestion at 1 o'clock position

DIAGNOSIS - *Guda vidradhi* (Perianal abscess)

TREATMENT PROTOCOL

- Incision & Drainage
- *Nimba Ksharasutra ligation*

INVESTIGATIONS

Hb%	11.2gm %
TC	7200 cells/cumm
RBC Count	5.08 miln/cumm
Platlet Count	1.12 lakhs/cumm
RBS	112 mg/dl
HIV	Negative
HBsAG	Negative
Blood Group	O positive
Bleeding time	2min 10 sec
Clotting time	4min 35 sec
Serum Creatinine	0.9mg/dl
Blood urea	34mg/dl
Urine - Sugar	Nil
- Albumin	Nil
- Microscopy	NAD

Purva karma:

- Written informed consent was taken for procedure
- Part preparation was done.
- Inj. Xylocaine 2% 0.2 cc (test dose) was given intra-dermally.
- Inj. T.T 0.5 cc was given intramuscularly.

Pradhana karma:

- Patient was taken to operative theatre and made to lie in lithotomy position.
- Part was painted with betadine solution followed spirit and draping of the part was done with sterile sheet.
- Inj Xylocaine 2% with adrenaline diluted with distilled water was infiltrated around the abscess site and anal verge.

- A cruciate incision was taken using no.11 blade at most prominent part of swelling to drain collected pus.
- Pus loculi broken by sinus forcep and pus was completely drained.
- A syringe with Hydrogen peroxide solution was injected through the external opening to see if there was any connection with the anal canal. It was seen that the solution was coming from the anal verge which confirmed a diagnosis of *fistula in ano*.
- Probing was done from external opening to trace the internal opening which was identified at 1 o'clock position.
- Barbour's linen thread no.20 was taken and threaded into the eye of probe. Then probe was pulled out through the other opening thus laying thread in the tract. The two ends of the thread were then tied together with a moderate tightness.
- After complete hemostasis the wound was packed tightly with gauze soaked in betadine solution and dressing was done.

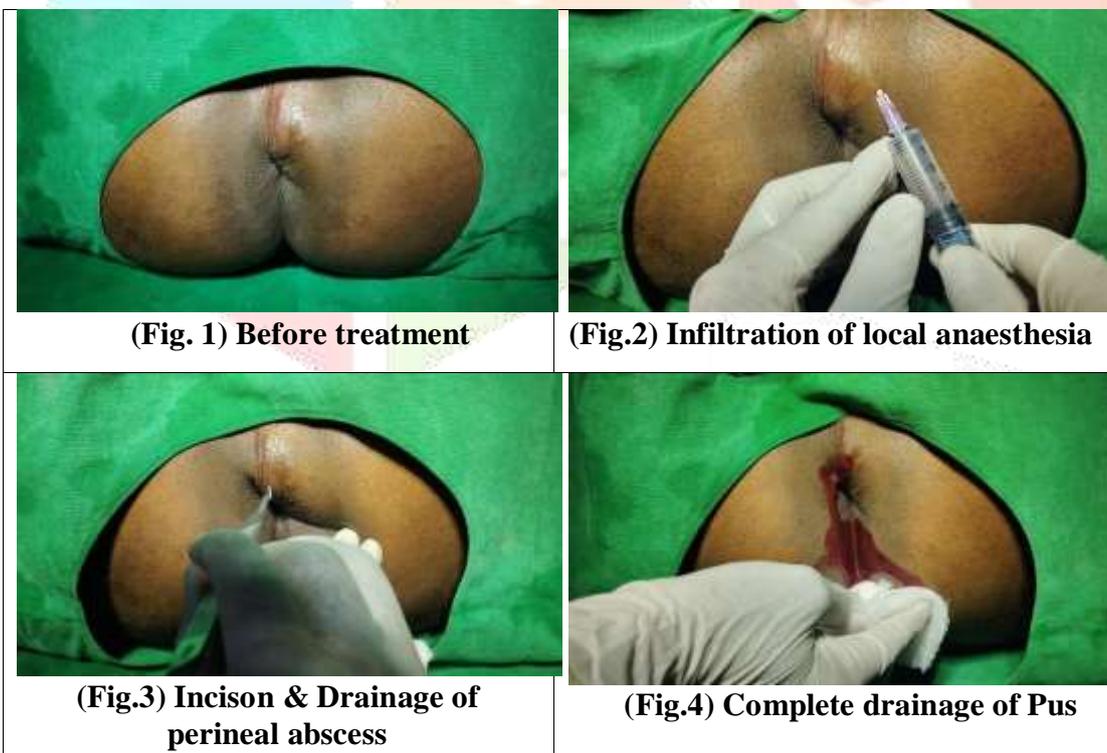
Paschat karma:

- Patient was advised to take *Panchavalkala avagaha sweda* followed by application of *jatyadi taila*.

Follow Up

- Seventh day onwards weekly once *Nimba Kshara* sutra was changed by rail road technique.
- Patient was advised to attend his normal duty during the treatment period.
- Internal medication - *Gandhaka rasayana* 1 BD after food
- Locally - *Panchavalkala avagaha sweda, jatyadi taila* application Twice daily

III. PICTURES





(Fig.5) Abscess cavity - post drainage



(Fig.6) Nimbaksharasutra ligation

(Fig.7) 14th Day(Fig.8) 21st day(Fig.9) 28th day(Fig.10) 45th day- Healed completely

IV. DISCUSSION

Fistula in ano is a challenging condition wherein surgeons mainly face difficulties like wound healing and post-operative recurrence. Different treatment methods for fistula in ano ranges from conservative, non-surgical approach to extensive surgical procedures with advanced laser techniques. The ideal treatment of fistula in ano remains a controversial. The ideal surgery should be simple, with short hospital stay, have a low recurrence rate, associated with minimum pain and wound deformity.

Acharya Sushruta advocated the use of *Kshara sutra* as management principle of *bhagandara*. The *Nimba kshara sutra* helps in debridement and lysis of tissue with antibacterial, anti-fungal and anti-inflammatory action. The *NimbaKshara sutra* acts as good drainage for the wound. *Kshara sutra* has alkaline pH so it possesses de sloughing property. The action of the *Kshara Sutra* is believed to be multifactorial. The *Nimba Kshara* applied to the thread acts as a caustic agent, promoting the cutting and draining of the tract. It also helps in destroying infective or necrotic tissue and stimulating the healing process. *NimbaKshara Sutra* treatment has several advantages, including minimal invasion, lower recurrence rates compared to conventional surgical methods, and faster healing with minimal discomfort.

In post-operative *Triphala Guggulu* containing *Emblica officinalis*, *Terminalia chebula*, *Terminalia bellerica*, *Piper longum*, and *Commiphora mukul* having anti-inflammatory and microbicidal properties of was helpful for *Vranashodhan*. Once the granulation tissue formation takes place, *Vranaropana* drug like *Panchavalkala* for *avagaha sweda* and *Jatyadi Taila* was used for wound dressing to minimize the wound infection and accelerate wound healing by reducing microbial load.

V. CONCLUSION

For uncomplicated or recurred fistula in ano after repeated surgeries, *Nimba Ksharasutra* ligation is a safe and highly effective procedure. It is easy, simple, less interfering, reducing hospital stay, quick healing, allowing early resumption of the work by patient with nil or very minimal recurrence rate.

It can be a better alternative to all current standard procedures. It has very less or no adverse effects. It is found to be very cost effective. It can also be done on OPD basis.

The field of *Ayurvedic* medicine, including *Kshara Sutra* treatment, continues to evolve with ongoing research and advancements. Newer techniques, modifications in the *Kshara* composition, and further understanding of the mechanism of action may lead to improvements in outcomes and patient care.

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