Management of Fistula-In-Ano with SubScrotal extension by Ayurvedic Surgical Approach- A single case study

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Abstract:

Bhagandara literally means *Darana* in *Bhaga*, *Guda* and *Basti pradesha* results in causing discomfort to the patient. Sushruta considered *Bhagandara* as one among the *Ashtamahagada*. It can be correlated to Fistula-in-ano, where there is an abnormal hollow tract or cavity that is lined with granulation tissue and that connects a primary opening inside the anal canal to a secondary opening in the perianal skin.

A 55 years old male patient consulted our Hospital, presented with discharge of pus from the subscrotal region associated with hard stools diagnosed as Fistula-in-Ano with SubScrotal Extension .In the present case report patient was intended to treat with ksharasutra, after treatment there is complete cutting and healing of fistulous tract without any complications.

Key Words : *Bhagandara*, Fistula-in-Ano with SubScrotal Extension, *Ksharasutra*,

Introduction:

Fistula-in-ano is an inflammatory track, lined by unhealthy granulation tissue and fibrous tissue that connects deeply in anal canal or rectum and superficially on the skin around the anus. Anal fistulae commonly occur in people with a history of an anal Abscesses[1]. They can form when anal abscesses do not heal properly[2]. Anal fistulae originate from the anal glands, which are located between the internal and external anal sphincter and drain in to the anal canal[3]. If the outlet of these glands becomes blocked, an abscess can form which can eventually extend to the skin surface. The track formed by this process is fistula[4].

It is considered second to haemorrhoids among all ano-rectal abnormalities[5]. According to a recent study conducted on the prevalence of anal fistula in a London hospital by Saino P. considering the incidences and epidemiological aspects for Fistula-in-ano in a defined population; approximately 10% of all patients and 4% of new patients were reported to suffer from this disease[6]. A study in India, reported that anal fistulae constitute 1.6% (Raghavaiah 1976)of all surgical admission. Prevalence rate of fistula-in-ano is 8.6 cases per 100,000 populations. The mean age of patients is 38.3 years[7]. The prevalence in men is 12.3cases & in women is 5.6 cases per 1, 00,000 populations.

Exceptions of Goodsall's rule have been reported for fistula-in-ano with subscrotal extention,which instead of opening posteriorly in midline,opens anteriorly[8]. Operative procedures adopted are Fistulectomy, Fistulotomy and use of a seton, newer methods like fibrin plug, Endo anal flap etc. Because of the lack of satisfactory results newer techniques have constantly been adopted for its management. Up to 26.5 percent recurrence rate, 40percent of high risk of impaired continence and 5.6 percent non healing of the wound were reported after surgical treatment. In addition to this, there will be severe post-operative pain which persists for many days. Moreover surgical treatment requires hospitalization, regular dressing and post-operative care for longer duration. To overcome such problems, surgical field is planning for some alternative techniques to treat these cases with minimal operative complications, recurrences and failure.

In Ayurveda Fistula-in-ano can be correlate to Bhagandara[9]. Ayurvedic line of treatment for Bhagandara includes medical, para-surgical and surgical management. Parasurgical management includes Ksharsutra, Agni karma and ksharvarti. The standard Ksharsutra as we see today was the result of the extensive research of Dr. P. J. Deshpande and his team, who finally standardized its preparation, preservation and application. This technique has been accepted as superior to all the surgical and parasurgical techniques available today in the field of proctology. In fact Ksharsutra treatment, for the management of fistula-in-ano was a part of the "National Campaign on Ksharsutra Therapy for Ano-Rectal disorders"[10]. The advantages of this procedure are, it is cost effective, needs minimal hospitalization and has least adverse effects. This can be employed efficiently in both high and low anal fistulas. The recurrence rate of Ksharsutra ligation is negligible (3-5%) with a success rate of 95%.The ICMR has validated this and the Ksharsutra therapy is also under active consideration of the WHO for its globalization. This type of therapy is considered as a minimal invasive parasurgical measure at global level[11]. Thus, it is necessary to modulate a well accepted Ayurvedic approach towards the disease and formulate the principles of management. If the treatment is planned well by means of scientific research, it can make wonders in the curability of complex symptoms of Subscrotal fistula.

Case report:

A 55 years old male patient consulted our Hospital department of shalyatantra opd at Taranath Government Ayurveda Medical college and Hospital Ballari in the month of March-2022 presented with discharge of pus from the subscrotal region.

History of Present illness:Patient was said to be apparently normal 6 months back, then he developed pain and swelling below the scrotum associated with Hard stools, incidious onset increasing gradually ,which is suppurated and burst opened spontaneously leading to the discharge of pus.then consulted near by doctors symptoms got reduced after taking oral medications, after 20 days again symptoms recurred 3-4 times.Hence visited our hospital.

Personal History:

Appetite-Good	Sleep- Disturbed
Bowel-Constipated	Habits- No
Diet-Mixed	Micturition- 4-5 times /day

General examination:

Height-169cms	Pallor- Absent
Weight- 77 kgs	Icterus-Absent
Built- well	Clubbing-Absent
BP-130/80	Cyanosis- Absent
PR-76bpm	Lymphadenopathy- Absent
	Edema- Absent

Systemic examination:

Respiratory system: Normal vesicular breaths sounds heard,no added sounds

CNS:No abnormality detected

CVS:S1S2 heard,No murmers

P/A :Soft, Non tender, No organomegaly

Local examination of Anus :

Inspection-

1. Openings: One external opening

a) Distance from Anal verge-4.7cms
b) Position acc to O' clock- 12 O' clock

2. Discharge:

Present

Nature:Serosanguineous

Palpation-

Induration-Extending from below scrotum upto the anal verge anteriorly

Digital examination-Induration felt anteriorly

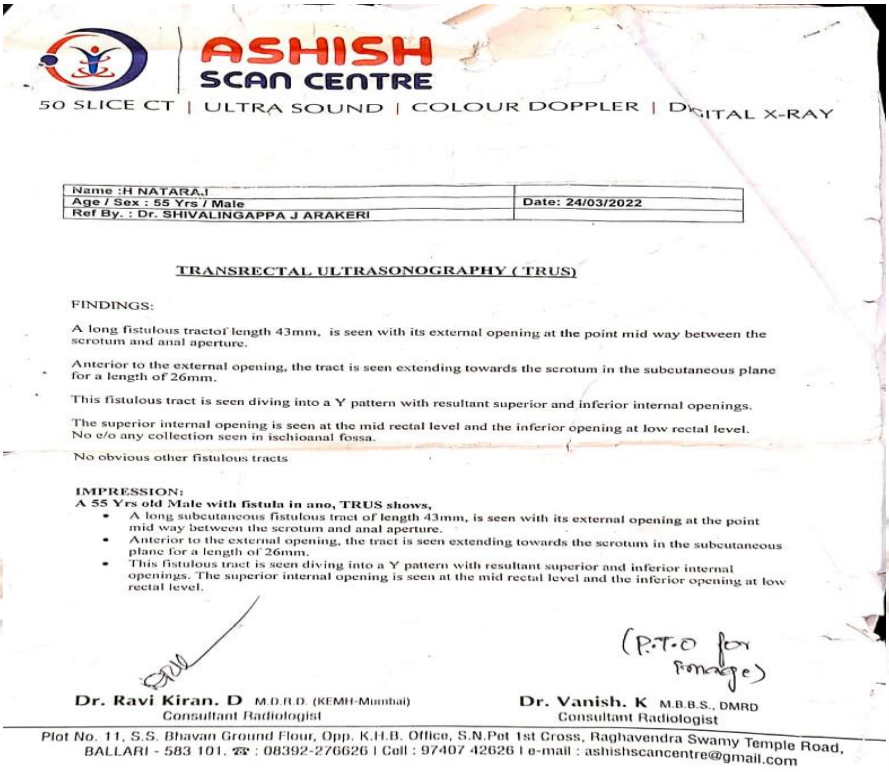
Investigations:

HB%-14.6 gms%,	HbsAg- Negetive
ESR- 14 mm/hr	HIV- 1&2-Nor-reactive
RBS- 136 mmhg	CT- 4 Sec/Min
Total Count- 9400 cells/cumm	BT- 3 Sec/Min

Trans Rectal Ultrasonography- 24/03/2022

A 55 Yrs old Male with fistula in ano, TRUS shows,

- A long subeutancous fistulous tract of length 43mm, is seen with its external opening at the point mid way between the scrotum and anal aperture.
- Anterior to the external opening, the tract is seen extending towards the scrotum in the subcutaneous plane for a length of 26mm.
- This fistulous tract is seen diving into a Y pattern witlh resultant superior and inferior internal openings. The superior internal opening is seen at the mid rectal level and the interior opening at low rectal level.



ASHISH SCAN CENTRE

50 SLICE CT | ULTRA SOUND | COLOUR DOPPLER | DIGITAL X-RAY

Name :H NATARAJ	
Age / Sex : 55 Yrs / Male	Date: 24/03/2022
Ref By. : Dr. SHIVALINGAPPA J ARAKERI	

TRANSRECTAL ULTRASONOGRAPHY (TRUS)

FINDINGS:

A long fistulous tractof length 43mm, is seen with its external opening at the point mid way between the scrotum and anal aperture.

Anterior to the external opening, the tract is seen extending towards the scrotum in the subcutaneous plane for a length of 26mm.

This fistulous tract is seen diving into a Y pattern with resultant superior and inferior internal openings.

The superior internal opening is seen at the mid rectal level and the inferior opening at low rectal level. No e/o any collection seen in ischioanal fossa.

No obvious other fistulous tracts

IMPRESSION:
A 55 Yrs old Male with fistula in ano, TRUS shows,

- A long subcutaneous fistulous tract of length 43mm, is seen with its external opening at the point mid way between the scrotum and anal aperture.
- Anterior to the external opening, the tract is seen extending towards the scrotum in the subcutaneous plane for a length of 26mm.
- This fistulous tract is seen diving into a Y pattern with resultant superior and inferior internal openings. The superior internal opening is seen at the mid rectal level and the inferior opening at low rectal level.

(P.T.O for Image)

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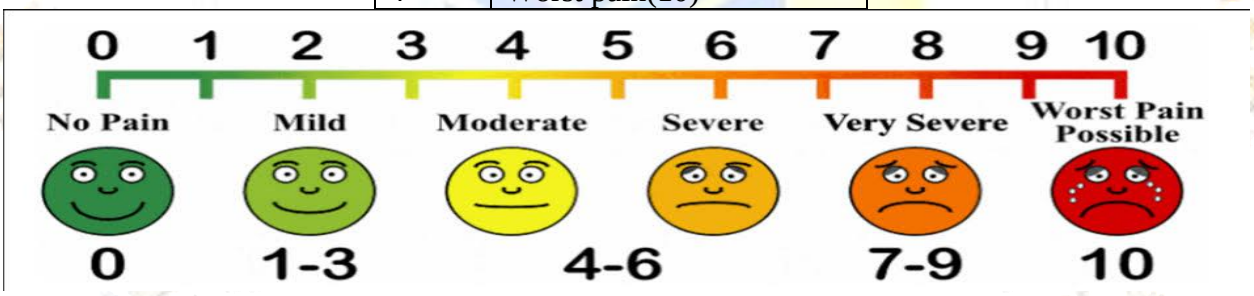
Assesment criteria:

1. Pain:

Grade	Pain
0	No pain
1	Mild pain (1-3)
2	Moderate pain(4-6)
3	Severe pain(7-9)
4	Worst pain(10)



2. Discharge:

D0-No discharge

D1-Mild discharge (wets 2x2cm gauze piece)

D2-Moderate discharge (wets 2x2cm 2 gauze piece)

D3-Severe discharge (wets 2x2cm > 2 gauze pieces

3. Pruritus ani:

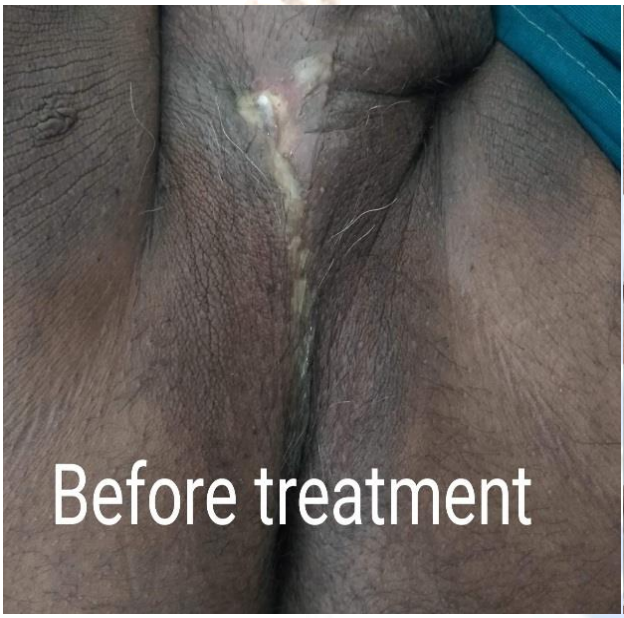
P_O-Pruritus ani absent.

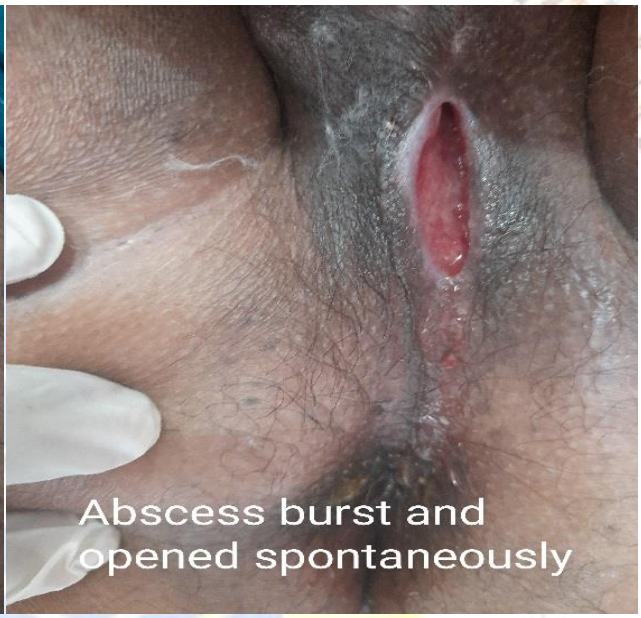
P1-Pruritus ani present.

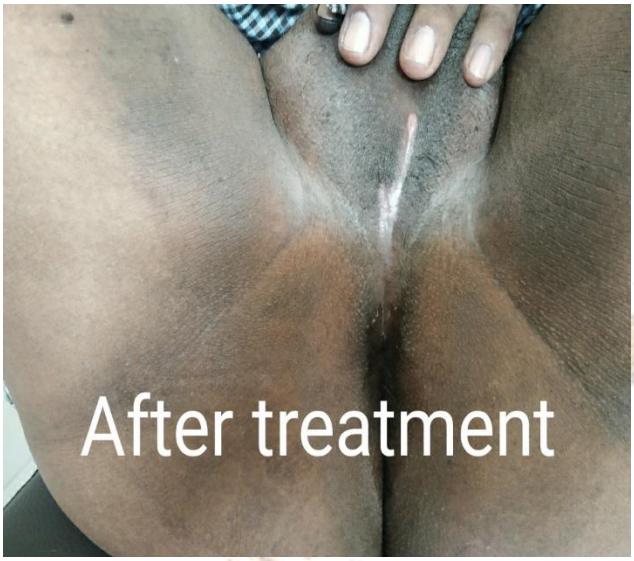
Treatment:

Primary threading of Apamarga Ksharsutra ligation;

Patient was shifted to OT and lithotomy position was given. Under all aseptic precautions part painted and drapped.well lubricated probe is inserted into external opening passed through the fistulous track, pierced and made internal opening at 12 O'clock position and primary threading done. Patient withstood the procedure well. Haemostasis achieved. Patient advised to take rest, sitz bath, tab triphala guggulu and tab gandhak rasayana. Ksharsutra is changed weekly. Every time thread is tied little tightly. Slowly tract will cut and heal simultaneously. Total duration was 9 sittings i,e & 9 weeks







		Number of sittings.										
Parameters	BT	01	02	03	04	05	06	07	08	09	10	AT
	BT	1st day	7th Day	14th day	21st day	28th day	35th day	42nd day	49th day	56th day	63rd day	AT
Pain	P_3	P_3	P_2	P_3	P_2	P_1	0	0	0	0		0
Discharge	D_3	D_3	D_3	D_3	D_2	D_2	D_2	D_1	D_1	0		0
Pruritus ani	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0			0
Length of tract in cms	4.7	4.7	4.7	4.1	3.3	2.4	1.5	0.9	0.5	00		0

❖ Action of Ksharasutra

- ❖ Helps in Cutting, Curetting, Draining and Healing of the fistulous track.
- ❖ Caustic action - Destroys and removes unhealthy tissues & Promotes healing of the fistulous track
- ❖ Controls infection by the microbicidal action
- ❖ Facilitate the drainage of Pus in fistulous track and helps in healing

Theories:

- ➢ Theory of Chemical Cauterization
- ➢ Theory of Antimicrobial Effect
- ➢ Mere Mechanical cut & Open theory
- ➢ Novel technique of local drug delivery

Days	Action of Ksharasutra
1	Local irritation and discomfort in the anal region
2-4	Inflammation (local Redness, burning sensation)
4	Necrosis: kshara comes in contact with the fistulous tract the stage of micro necrosis begins.
5-6	Shedding of unhealthy granulation tissue due to necrosis (cutting of fistulous tract) Fibroblastic proliferation
7	The Haridra coating of new ksharasutra comes in contact with the fistulous tract which completes the healing.

Low recurrence: The Ksharasutra allows invisible minor ramifications to drain in to the major tract by healing themselves totally before the major tract is cutoff

Conclusion:

Ksharsutra therapy is the most accepted and scientifically validated procedure worldwide for the treatment of Fistula-in-ano. The existing data on Ksharsutra reveals very negligible chances of recurrence by this modality of treatment. The Apamarga Ksharsutra is well proven to be an effective treatment for Fistula-in-ano and has been standardized by the Central Council of Research in Ayurveda and Siddha, an apex research organization of Government of India in the field of Indian system of medicine.). Anal fistulas with scrotal extension are mostly low transsphincteric or intersphincteric with anterior internal openings. High transsphincteric or suprasphincteric fistulas rarely extend into the scrotum, except in recurrent cases.

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