

MANAGEMENT OF SINUS TRACT WITH KSHARASUTRA - A CASE STUDYFarahath Naaz¹, Vijaykumar Biradar²¹P.G. Scholar of Shalyatantra Dept., N K Jabshetty Ayurvedic Medical College, Bidar, Karnataka, India²Professor of Shalyatantra Dept., N K Jabshetty Ayurvedic Medical College, Bidar, Karnataka, IndiaCorresponding Author: farahathnaaz1234@gmail.com<https://doi.org/10.46607/iamj3010042022>

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**ABSTRACT**

Naadivrana is nothing but a tract due to not being treated the vrana shopha as per Ayurveda. Naadivrana can be correlated with sinus tract because it is chronic non healing, discharging, blind tract lined with unhealthy granulation tissue which may be epithelialized, it may have cavity which connects to skin. In this case study, patient is having sinus tract in the scrotum which is blind externally treated with kshara sutra which decrease the pain, pus, discharge etc, and duration of treatment. Patient cured completely within 5 week of treatment there is no side effect or complication seen. The treatment undertaken was very effective as it reduced duration of treatment and it is proved very effective.

Keywords: *nadivrana, vranashopha, ayurveda, kshara sutra***INTRODUCTION**

In Ayurvedic science, Acharya Sushruta described sinuses under the heading of Naadivrana along with their symptoms and management. According to Sushruta the irresponsible person who makes a suppurated inflammation for an unripe one, ignores a suppurate one, or when a patient allows a lot of pus to

accumulate in an ulcer then that pus having entered into his aforesaid tissues (lie skin, subcutaneous tissue, muscle) penetrates inside because of copious flow, it is known as "gait" (track) and as it flows like a drain, it is opened as naadi, that is caused by a combined action of the three dosh or due to each one

of them separately and also due to two together only, another one is due to Agantuja shalya. According to acharya sushruta, a surgeon should excise a sinus using a sutra that is prepared out kshara.

Case Report:

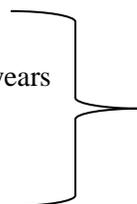
Patient name: Abdul Hadi, Age/sex: 45/M, O.P.D.no: 21037227, Date of Admission: -12-12-21, Date of discharge: - 21-02-22

Religion: - Muslim

Occupation: - Teacher

Chief Complaints:

- Scrotal pain ++
- Pus discharge through the opening
- Difficulty in walking and sitting. For 2 years
- Constipation
- Bleeding from a tumor on & off
- swelling



Associate complaints:

- Hard stool
- Fever
- General weakness

Past History:

The first Patient had acute inflammation of the deep scrotal wall then he developed left epididymis showing a small thin-walled cyst gradually he developed the tract from the scrotum extended into the perineum.

The patient had a history of I & D treatment.

Personal History: BP: 180/80mmHg, the Pulse rate: 74/min, Temperature: 98.6°C, Respiratory rate: 20/min, Wt.: 105kg, RBS: 123 gm./dl, CVS: S₁ S₂ heard, R.S: bilateral lung field clear., C.N.S: conscious oriented, Digestive system: constipated

Family History:

- The patient has a family history of constipation.
- No such history of fistula in ano seen.
- No such history of BP or DM or any other major illness.

History of present illness: The patient is having severe pain in the scrotum, pus discharge, bleeding, difficulty in walking, he visited a local hospital took symptomatic treatment, but no relief was seen, then went to Dr. Shakeel Surekha hospital in Raichur he has undergone I &D Treatment, but it reoccurred.

Again, he took treatment in local hospitals then he went to homeopathic treatment, but no changes were found, hence he came to our hospital for further treatment.

Local Examination:

- A small sinus was seen in scrotum which opens near the perineum
- Tenderness ++
- Pus discharge from the opening

Diagnosis: Scroto- perineal sinus tract

Investigations: CBP, CT, BT, RBS, HIV, HbsAg, CUE

Treatment:

Preoperative Treatment:

- Patient consent should be taken.
- Part preparation is done.
- Injection T.T 0.5ml td
- Injection xylocaine td

Operative Treatment:

- Ask the patient to sleep in a lithotomic position.
- Under all aseptic precautions and local anesthesia, the Probing was done, and another small nick is given on the other end of the tip of the probe. And tract is identified.
- So, there will be a 5-6cm sized track found. Primary threading was done with a normal Barbour thread.

Post-operative treatment:

- Yashtimadhu taila pack is kept and dressing is done to reduce the painful burning sensation.
- Inj. Divon Aq given IM
- To reduce inflammation oral antibiotics and anti-inflammatory drugs were prescribed for 3 days.
- Advise sitz bath daily after that apply yashtimadhu taila.

Conservation:

- Tab Triphala Guggulu 1 - 0 - 1
- Tab Gandhak Rasayan- 1 - 0 - 1
- Triphala chooma for sit bath
- Abhyarishta 3tsp -0- 3tsp

Follow-up: Ask the patient to come for a follow-up every week to change kshara sutra.

Previous reports

SHIVA SAAI SCAN CENTER
 ಶಿವ ಸಾಯಿ ಸಾಕನ ಸೆಂಟರ್
 08473 - 250450
 08105123459
 shivasaiscancenter@gmail.com

NAME:	MR. ABDUL ALI	AGE/SEX:	40Y/M	US No:	30070319
REF. BY:	DR. MAHESH REDDY S. RKS	DATE:	30-Mar-19		

ULTRASONOGRAPHY OF SCROTUM

Both testes are normal in size and show homogenous normal echotextures. There is no focal lesion.
 Right testis: Measures 4.6 x 2.0cms.
 Left testis: Measures 4.2 x 1.9cms.

Epididymis and spermatic cord appear normal bilaterally.

There is evidence of focal fat inflammation seen within the deep scrotal wall layer in the midline, there is no abnormal fluid in tunica vaginalis.

Doppler study shows normal arterial flow in both testes. No abnormally dilated venous channels are seen. There is no flow reflux during valsalva.

IMPRESSION:

- ACUTE INFLAMMATION OF DEEP SCROTAL WALL

DR. SANTHOSH S. PATIL
 CONSULTANT RADIOLOGIST
 M.D RADIOLOGY

*Thanks for your reference

Ashakiran Imaging Centre
 CMC Complex, # 10, Downing Street, Pura Buzi, RAICHUR - 584 101
 E-mail: ashakiran@gmail.com, ashakiran@hotmail.com, ashakiran@rediffmail.com
 Reception: 234607

Dr. A. Adoni
 Consultant Radiologist

U/S No: 062/1245
 Patient's Name: Mr. Abdul Hadi
 Date: 04/07.07.2019
 Age/Sex: 39 Y/M

SCROTAL US SCAN REPORT

The scrotum was scanned using high frequency linear probe 10-3 MHz.

Both testes are normal in size, shape and echopattern. No focal lesions noted.

RT: 31.8 mm x 17.2 mm x 30.3 mm
 LT: 44.6 mm x 21.2 mm x 20.9 mm

Both epididymis are normal and measure as follows in their body and head region.

RT. Epididymis: 28.4 mm x 10.2 mm x 5.7 mm
 LT. Epididymis: 26.8 mm x 9.6 mm x 7.8 mm

Left epididymis shows small thin walled cysts.

CFI and CPA do not show any increased vascularity either through both epididymis or through the testicular parenchyma.

No serpiginous anechoic lesions filling with colour in CFM examination during Valsalva manoeuvre.

There is a slightly undulated cylindrical lesion: noted extending from median raphe to the skin of the scrotal wall, slightly more to left measuring 34.6 mm x 8.6 mm x 6.8 mm of volume 3.5 ml. The lesion has low level internal echoes and CFM (colour flow mapping) and CPA (colour power angle) examinations show subtly increased vascularity of the wall. The lesion does not communicate in the testicular sacs or into vaginal(tunica) cavities.

IMP: Normal testes and no focal lesion in the testicular parenchyma.
 Normal vascularity of the testes and epididymis.
 No varicocele.
 Left epididymal small cysts.
 Scrotal wall abscess forming into sinus tract without communication into vaginal (tunica) cavity or testicular sac.

Thanks for reference,
 Dr. A. Adoni
 Consultant Radiologist
 (MS)

ZED CARE
 ULTRASOUND SCANNING
 DIGITAL X-RAY CENTRE
 Dr. Mohammad Zubair
 M.B.B.S., D.M.R.D.
 Consultant Radiologist
 Opp. Star Function Hall, Hagarga Cross
 Ring Road, KALABURAGI-Ph: 9632554990
 E-mail: zubair_docs2009@yahoo.co.in

HRUSG OF PERINEUM

Name :	ADBUL HADI	Age/sex: yrs/ M
Ref By: DR. SHAIKH MAHMOOD M.S		Date: 13-07-19

Thanks for your referral

Observations :

- E/o Linear hypoechoic tract seen extending from the base of the scrotum extending along the midline measuring upto 5 to 6cms in length and 1cms in thickness.
- Tract is seen traceable upto root of the penis and seen at a maximum depth of 2.5cms distally.
- No other abnormality.

Impression :

Fistula in perineum.

Dr. Mohammad Zubair
 M.B.B.S., D.M.R.D.
 Consultant Radiologist

Please note that this report is a professional opinion based on image findings and not a diagnosis by itself, it has to be correlated clinically and interpreted along with other investigations.

TIMING : 12.00 PM TO 3.30 PM, 4.30PM TO 10.00 PM.

RAHI DIAGNOSTICS
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Patient Name: Mr. Abdul Hadi
 Referred By: Dr. Shakeel
 Age/Sex: 39 Y/M
 Bill No:
 ID. No. 06/27/44
 Date: 27/06/2019

ULTRASOUND SCROTUM

RIGHT TESTIS : Normal in size (measures 23 x 25 x 41 mm of vol 13.1 ml), echotexture and shows normal vascularity. No focal lesion seen.

RIGHT EPIDIDYMS : Normal in size, echotexture and shows normal vascularity. No focal lesion seen.

LEFT TESTIS : Normal in size (measures 23 x 30 x 33 mm of vol 12.1 ml), echotexture and shows normal vascularity. No focal lesion seen.

LEFT EPIDIDYMS : Normal in size, echotexture and shows normal vascularity. No focal lesion seen.

No hydrocele seen.
 No varicocele seen.

Focal scrotal edema noted in the mid line and ventral scrotal wall. Thick walled echogenic collection measuring 38 x 19 x 40 mm of vol 16 ml noted in the mid line scrotal wall extending into the ventral aspect. Peripheral vascularity noted on CDI. No calcification.

IMPRESSION:

Features are suggestive of scrotal wall abscess with scrotal wall edema.

Please correlate clinically

Thanks for the reference

Dr. Ehtasham Rahi
 Consultant Radiologist
 KMC Reg. No. : 69112

12-10-52/B, Kadam Factory Premises, Near Gandhi Chowk, RAICHUR- 584 102, Karnataka
 Mobile : 88844 22215, 81232 32209, Email : drrahidiagnostics@gmail.com

HI-TEC DIAGNOSTIC CENTRE
 # 3-8-55, Dr. Anantha Rao Clinic's Building, Besant Garden, Jeevan Temple Road, RAICHUR.
 e-mail: hitecrichur@gmail.com Ph: 08532 - 225109, Cell: 9164289593

Caring lives..... Quality never ends.....

PATIENT NAME: ABDUL HADI LAB NO. 56 AGE / SEX 39 Y / M
 REF BY DR: DR. MALLAN GOUDA S.PATH. MS DATE: 04.07.2019

COMPLETE BLOOD COUNT

TEST	VALUES	NORMAL RANGES
HAEMOGLOBIN	9.0	(12 - 15 gms % FEMALE) (14 - 17 gms % MALE)
TOTAL R B C COUNT	2.7	(4.5 - 6.5 M / cum)
P CV	23	(42 - 52 Vol %)
M CV	79	(77 - 97 F1)
M CH	29	(27 - 31 Pg)
M CH C	33	(31 - 35 %)
PLATELET COUNT	2.47	(1.5 - 4.5 Lakhs / cumm)
TOTAL W B C COUNT	4,300	(4,000- 11,000 Cells/cumm)
DIFFERENTIAL COUNT		
NEUTROPHILS	54	(45 - 70 %)
LYMPHOCYTES	41	(20 - 45 %)
EOSINOPHILS	03	(01 - 06 %)
MONOCYTES	02	(02 - 10 %)
BASOPHILS	00	(00 - 01 %)
E.S.R	16	(05 - 20 mm / hr)
A E C	130	(40 - 440 Cells / Cumm)
BIO-CHEMISTRY		
TEST	VALUES	NORMAL RANGES
RANDOM BLOOD SUGAR	79	(70 - 150 mg / dl)
BLOOD UREA	26	(13 - 45 mg / dl)
CREATININE	0.7	(0.4 - 1.4 mg / dl)

Dr. A.S. Aanand MD PATHOLOGIST
 CONSULTANT PATHOLOGIST

ALL THE INVESTIGATIONS HAVE THEIR LIMITATIONS WHICH ARE IMPOSED BY THE LIMITS OF SENSITIVITY AND SPECIFICITY OF INDIVIDUAL ASSAY, PROCEDURES AS WELL AS THE QUALITY AND SPECIMEN RECEIVED BY THE LABORATORY. ISOLATED LABORATORY INVESTIGATIONS NEVER CONFIRM THE FINAL DIAGNOSIS OF THE DISEASE. THEY ONLY HELP IN ARRIVING AT A DIAGNOSIS IN CONJUNCTION WITH CLINICAL PRESENTATION AND OTHER RELATED INVESTIGATIONS.

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 # 10-2-31, Opp. Bank of Baroda, Near Chandramouleshwara Chowk, City Talkies Road, RAICHUR-584101.
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Mr. ABDUL HADI REG/LAB NO. : 19041933 / 11786
 39 yrs / M DATE OF COLLECTION : 22-04-19 AT 03:09 PM
 SELF DATE OF REPORT : 22-04-19 AT 04:10 PM
 PRESCRIPTION TYPE : IP /

PARAMETER	RESULT	REFERENCE RANGE
TRIIODOTHYRONINE (T3)	1.51 ng/ml	0.5 - 2.33 ng/ml
THYROXINE (T4)	11.13 ug/dl	5.4 - 11.7 ug/dl
THYROID STIMULATING HORMONE (TSH)	1.77 µIU/ml	0.4 - 5 µIU/ml

Printed by: Mallikarjun Mys on 22-04-19 AT 04:10 PM

End of Report****

Investigations have their limitation which are imposed by the limits of sensitivity and specificity of individual assay procedures. Isolated laboratory investigation never confirm the final diagnosis of the disease. They only help in arriving at diagnosis in conjunction with clinical and other related investigations. Kindly correlate clinically.

Dr. NAMITA HEGDEKATTE MD
 Consultant Pathologist

SRI SIDDHAROODHA CHARITABLE HOSPITAL & RESEARCH CENTRE
 Teaching Hospital attached to N.K. Jabshetty Ayurvedic Medical College & P.G. Centre
 Sri Siddharoodha Math, (Gumpa) Manhalli Road, BIDAR - 585 403.

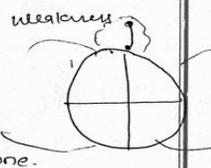
OPD.No. 21037227 Date: 12-02-2021
 Name: Abdul Hadi Age 45 yrs Sex Male

Chief complaints:- pain in scrotal region.
 - pus discharge
 - Difficulty in walking, sitting } Since 2yrs
 - Constipation
 - Bleeding on & off

Associated complaints:- Hard stool ++
 - Penae
 - General weakness

Diagnosis:- Scrotal sinus tract

Rx - Primary threading done.



Under Local Anesthesia, part prepared & cleaning Probing done & primary threading done

Rx

- Tab Triphala Chuggulu (30) 1-0-1
- Tab Paduka Rasayan (30) 1-0-1
- Triphala choorna - 0 for sitz bath
- yashtimadhu oil - 0 C1A.
- Abharjarishla - 0 34p 3D

Dr. P.

Present Reports

Before treatment First day of probing



Primary threading is done (1st setting)



7th day (2nd setting)



14th day (3rd setting)



21st day (4th setting)



30th day (5th setting)



35th day



45th day



51st day



60th day



DISCUSSION

The treatment adopted to treat sinus tract proved to be very effective. It reduce healing time, Kshara sutra is medicated caustic thread coated with alkaline drugs like Apamarga, snuhi latex as a binding agent, and Haridra powder, this combination of medicine coating on thread helps in the debridement of necrosis tissues, slough. It can perform excision, incision, scraping, and also acts as anti-fungal, anti-bacterial & anti-inflammatory. Another mechanism is that it enhances the growth of unhealthy granulation tissue.

Triphla guggulu worked as antiinfective preventing secondary infection as well as a mild laxative and analgesic.

The whole time period of treatment was around two months.

CONCLUSION

In ancient times acharya sushruta mentioned kshara sutra therapy in Naadivrana chikitsa. In this case study, minimum tissue loss is seen in comparison to the other surgery. Minimal bleeding occurs & there is no reoccurrence and any other complaints. This kshara sutra therapy is satisfactory in the management of the scroto-perineal sinus tract. It's not only curing the track but also minimizes the rate of complication, and reoccurrence and enables the patient to work and participate in normal social activities within a short period. It is good therapy in terms of the cost of treatment.

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