'website : www.ijacare.in e-ISSN No.: 2457-0443
INTERNATIONAL JOURNAL OF AYUSH CASE REPORTS (IJA-CARE)

Apamarga Ksharasutra application in blind external Fistula-in-Ano in a paediatric patient : A Case Report

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ABSTRACT:

This case study details the management of a blind fistula-in-ano in a paediatric patient using *Kshar Sutra* therapy. The 10-year-old male presented with severe perianal pain exacerbated by defecation and prolonged sitting. Despite being malnourished and underweight, systemic examinations were found normal. Diagnostic findings revealed perianal induration without any external opening tract extending toward the dentate line at the 11 o'clock position. Trans Rectal Ultra Sonography (TRUS) showing 9 mm long and 4 mm wide curvilinear sinus tracts seen in right perianal region at 11 O'clock position, internal opening is seen at 1 O'clock position,3 mm proximal to anal verge. Surgical intervention involved a stab incision, excision of unhealthy tissue, and *Apamarga Kshar Sutra* ligation at 11 to 11 O'clock position (external to internal). Post-operative care included sitz baths with *Panchavalkala Kwatha* twice in a day then topical applications *Panchavalkala Malhara* for 21 days, and orally *Kanchnara Guggulu* 1 tab thrice in a day after meal with luke warm water for 21 days, The patient showed progressive healing in 21 days without complications like incontinence or recurrence during follow-up of 4 months, demonstrating the efficacy and safety of *Kshar Sutra* therapy in managing fistula -in-ano cases in paediatric patients.

KEYWORDS: *Apamarga Ksharsutra*, Fistula in ano, *Panchavalkala Kwatha.*

Received: 29.08.2024 Revised: 14.09.2024 Accepted: 18.09.2024 Published: 21.09.2024

Quick Response Code

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INTRODUCTION:

A majority of abscesses are of nonspecific cryptoglandular origin but may also be due to a variety of processes, which are primarily inflammatory or traumatic.[1] In longstanding cases of fissure-in-ano fibrous induration frequently develops in the lateral edges of the fissure, frank suppuration may occur and extend into the surrounding tissues, forming an inter-sphincteric or perianal abscess that

may discharge through the anal canal or burst out spontaneously externally and produce a low inter-sphincteric fistula. Usually, the external opening of this fistula is close to the midline and a short distance from the anus. [2] When we refer to a granulating track that is open at only one end, we are using the term sinus (L = bay or recess). Nonetheless, these cul de sacs are sometimes commonly referred to as "blind fistulae".[3] Fistula-in-ano are similar with *Bhagandara Roga* mentioned in *Ashta Mahagada* by Acharya Sushruta. [4] *Ashta Mahagada* is a given nomenclature to nature of diseases which indicates its bad prognosis if left untreated. When *Pidika* around *Guda* is burst out is called as *Bhagandara*.. The goal of treatment of fistula-in-ano is eradication of sepsis without sacrificing continence. Fistula-in-ano poses a challenging clinical scenario, particularly in paediatric patients, necessitating effective management strategies to achieve both sepsis eradication and preservation of anal continence. [5] Traditional approaches such as fistulectomy may carry risks of incontinence, prompting exploration of alternative therapies like *Kshar Sutra*, known for its sphincter sparing benefits and low recurrence rates.

CASE REPORT:

A 10-year-old male patient presented at the outpatient department of Shalya Tantra, complaining of intense throbbing pain in the perianal region aggravated by defecation and prolonged sitting over the past 10 days. He also reported a chronic cough and chest congestion persisting for 2 years, for which he has been using a steroid and bronchodilator nebulizer. Also having history of forceful feeding by mother since birth till date. Still the patient is malnourished and underweight, with a BMI of 12.2 kg/m², thin and short in stature. His appetite is poor, and he typically has difficulty passing hard stools once daily. There was no any relevant past surgical and family history. On general and systemic examination, no abnormalities were detected. Consequently, he was admitted to the male child surgical ward for further evaluation and treatment. Comprehensive pre-operative investigations have been carried out to assess his condition thoroughly before proceeding with treatment.

Diagnostic findings:

On inspection mild induration seen at perianal region (9 to 11 O'clock position). Palpation: temperature was raised on perianal region; mild tenderness was present externally tract was palpated near the inter-sphincteric groove. Digital rectal examination finds internal opening felt at 11 O'clock position around dentate line tenderness present and temperature raised inside the anal canal. [Figure 1]

For further evaluation patient was advised for TRUS showing 9 mm long and 4 mm wide curvilinear sinus tracts seen in right perianal region at 11 O'clock position, internal opening is seen at 1 O'clock position, 3 mm proximal to anal verge, no external opening at present.

Seems to be low type of inter-sphincteric sinus in ano. [Figure- 2]

Diagnostic method - Patient diagnosed on the basis of local examination, per rectal examination and TRUS report.

Laboratory investigations-

Haematological investigations: Hb- 10.2 gm % ,TLC- 9460 /cu.mm R.B.C- 4.51 milli/c.mm, Platelets count -3.4lakh /cu.mm, ESR- 14 mm/hr, Clotting and bleeding time- 2min 30sec and 1min 35sec respectively.

Biochemistry investigations: RBS- 86mg/dl ,SGPT -30 U/L, Urea -23 mg/dl , Creatinine-

1.16 mg/dl. Serological investigations: HIV, HBsAg, HCV, VDRL were non-reactive.
Radiological investigation: Chest Xray-PA view and USG abdomen pelvis showing normal study.

THERAPEUTIC INTERVENTION:

Pre-operative:
Informed written consent of patient's parents was taken prior to procedure with explained prognosis and result. Injection Tetanus Toxoid 0.5 ml intramuscular was given and Inj. xylocaine intra-dermal sensitivity test was done. Patient was kept NBM (Nill By Mouth) for 6 hours prior to surgery. Part preparation was done and proctoclysis enema was given 2 hours prior to surgery.

Operative:
With stable vitals, the patient was taken to the operating room. After short general anaesthesia in the supine position, the patient was positioned in the lithotomy position. After painting with a 10% betadine solution and spirit, a sterile linen cut sheet was used for draping.
Local anaesthesia xylocaine with adrenaline (1:2 lakh) given around 9 to 11 O'clock. A stab incision was made at the 11 o'clock position using a surgical blade number 11 to drain the pus cavity. The incision was then widened to excise unhealthy granulation tissue. Probing was done from the external wound towards the anal verge, confirming extension to the 11 o'clock position at the level of the dentate line. 9mm long and 4 mm wide (approximately) tract was carefully removed, few external sphincter fibres are also seen involved at 11 O'clock position so plain thread was ligated from 11 to 11 O'clock (external to internal). Adequate haemostasis was ensured, and the wound cavity was packed with gauze pieces soaked in betadine and hydrogen peroxide solution followed by a dry gauze pad. The patient was then transferred to the ward with stable vital signs.

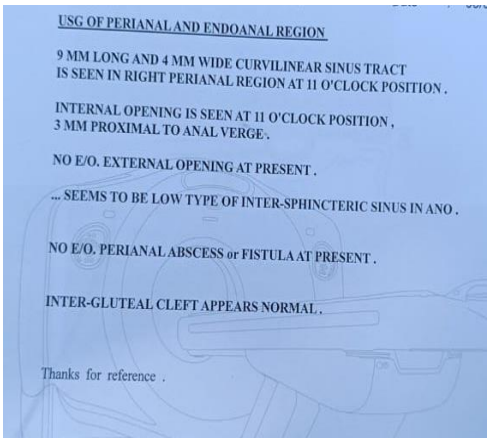
Post-Operative management:
Patient was advised to take sitz bath with *Panchavalkala Kwatha* twice in a day for 21 days. Then cleaning of post operative wound was done with *Panchavalkala Kwatha* followed by aseptic dressing with *Panchvallakala Malhara,* while *Apamarga Kshar Sutra* changed once in a weak. Orally 1 tablet (500 mg each) of *Kanchanara Guggulu* thrice in a day with lukewarm water after meal was given for 21 days. Patient was advised to maintain hygiene, regular walking, avoid oily and spicy food etc. till complete healing of post-operative wound. *Kshar Sutra* was changed by railroad technique after every week. [6]

Time line - Follow-up and outcome is mentioned in Table 1.

Table-1: Time line – follow up and outcomes:

Day and Date	Events and Observations	Management
1st day of consultation **Date- 03/04/2024**	Local examination done	Advised for TRUS , Preoperative investigations and preoperative assessment done
Day of Operation **Date- 04/04/2024**	Preoperative and operative procedure i.e., incision and drainage followed plain thread ligation done	Post operative observation vital monitoring done
1st post-operative day (Figure- 3) **Date- 05/04/2024**	Post-operative wound cavity was cleaned and packed with *Panchavalkala Kwatha* and *Malhara* respectively	Patient was advised to take daily sitz bath with *Panchavalkala Kwatha* twice in a day and Orally 1 tablet (500 mg each) of *Kanchanara Guggulu* thrice in a day with lukewarm water after meal
7th post-operative day (Figure- 4) **Date- 11/04/2024**	Post-operative wound was unhealthy, seropurulent discharge and slough was present, mild pain and tenderness was present over margins .	Continue as above Plain thread was changed with *, Apamarga Kshar Sutra*
14h post-operative day (Figure- 5) **Date- 18 /04/2024**	Wound was healthy with mild slough over floor , epithelisation seen over the margins, anal sphincter tone felt normal	Continue as above *Apamarga Kshar Sutra* slough out
21th post-operative day (Figure-6) **Date- 25/04/2024**	Wound healed completely without any complications of incontinence .	No medicine
Follow-up of 4 months (Figure-7) **Date- 04/08/24**	Minimal scar mark present. without any complications of incontinence and sign of recurrence.	No medicine

Figure-1: on first day of admission



USG OF PERIANAL AND ENDOANAL REGION

9 MM LONG AND 4 MM WIDE CURVILINEAR SINUS TRACT IS SEEN IN RIGHT PERIANAL REGION AT 11 O'CLOCK POSITION .

INTERNAL OPENING IS SEEN AT 11 O'CLOCK POSITION , 3 MM PROXIMAL TO ANAL VERGE .

NO E/O. EXTERNAL OPENING AT PRESENT .

... SEEMS TO BE LOW TYPE OF INTER-SPHINCTERIC SINUS IN ANO .

NO E/O. PERIANAL ABSCESS or FISTULA AT PRESENT .

INTER-GLUTEAL CLEFT APPEARS NORMAL .

Thanks for reference .

Figure-2: TRUS report BT

Figure-3: post op day 1

Figure-4: post op day 7

Figure-5: post op day 14 *Kshar Sutra* slough out

Figure-6: Status on Day 21

Figure-7: follow up 4 Months

DISCUSSION:

At the time of the surgery abscess was found to have involved a few fibres of external sphincter at 11 O'clock due to infective pus collection there was inflammation and induration present in external sphincter also. So, this concerns a low trans-sphincteric fistula can often be treated simply by division of the lowest portion of the external sphincter without risk of incontinence. [7] However, due to the patient being in the paediatric age group and thus having less developed anal sphincters, there is an increased chances of infection and post-operative pain associated with sphincterotomy. Also, the patient was malnourished, having history of passing hard stools and taking steroidal bronchodilator Slow healing was expected in this particular case Therefore, the decision has been made to proceed with partial fistulectomy and *Kshar Sutra* ligation in this case.

Apamarga Kshar Sutra is a unique medicated Seton coated with *Apamarga Kshar* having both cutting and healing property by its alkaline characteristics and tension of tying, it encourage the healing by new granulation tissue formation with base as well as maintain continuous aseptic condition after *Kshara Sutra* ligation, also providing drainage of fistulous tract. [8]

The cutting and healing of fistulous tract takes place simultaneously therefore the possibility of damage to anal sphincter is less and chances of incontinence are practically nil.

It is a cost effective; day care procedure and hospitalization is not required in majority of the patients. During the course of treatment patient remain ambulatory and can perform routine daily activities normally.

Previous original research evidence indicated that the paediatric age group had a lower incidence of anal incontinence and a minimal recurrence of FIA by Sphincter-sparing non-cutting seton placement.[9]

Panchvalkal Kwatha was given for sitz bath having predominantly of *Kashaya Rasa*. So, it helps in *Vrana Shodhana* and *Vrana Ropana*. It helps to maintain local hygiene of the perianal region thus it prevents the chances of secondary infection. [10] And also relaxed the sphincters and urinary bladder and facilitated defecation as well as urination.

CONCLUSION:

This is a single case report on a paediatric patient who underwent *Ksha Sutra* ligation; more cases of this type are required to draw conclusions about the procedure's ability to reduce the incidence of anal incontinence and chances of a minimum recurrence. Patient

was referred to a paediatrician for malnutrition and underweight treatment.

Patients Consent: The informed written consent has been taken from patient's father during enrolment for treatment and publication of the data without disclose the identity of patient.

Conflict of interest: The author declares that there is no conflict of interest.

Guarantor*:* The corresponding author is the guarantor of this article and its contents.

Source of support: None

How to cite this article:
Gaur S, Joshi PB, Dudhamal TS. Apamarga Ksharasutra application in blind external Fistula-in-Ano in a Paediatric Patient : A Case Report Int. J. AYUSH CaRe. 2024;8(3):320-326.

REFERENCES:

1. David E. Beck, Steven D. Wexner et al, Gordon and Nivatvong's, Principles and Practice of Surgery for the Colon, Rectum and Anus, Anorectal abscess and Fistula-In-Ano, Thieme Medical Publishers, New York, 2019 Fourth Edition, Pp-183.
2. David E. Beck, Steven D. Wexner, Gordon and Nivatvong's, Principles and Practice of Surgery for the Colon, Rectum and Anus, Fissure-In-Ano and Anal Stenosis, Thieme Medical Publishers, New York , 2019 Fourth Edition, Pp-164.
3. Goligher J.C., Duthie, Surgery of the Anus, Rectum and Colon, Fistula-in-ano, Elsevier Health Sciences, United Kingdom 1986 Pp-174.
4. Ambika Dutta Shastri, Sushruta Samhita Sutra Sthan 37/22, Chaukhambha Orientalia, Varanasi: 2009 Pp-162.
5. Besendörfer M, Langer L, Carbon R, Weiss C, Müller H, Diez S. Treatment of paediatrics fistula-in-ano-Sphincter-sparing non-cutting seton placement as the future treatment of choice? Front Surg. 2023 Apr 11;10:1144425.
6. Lobo, Supreeth Joyal; Bhuyan, C. Gupta, S. K. Dudhamal, T. S. A comparative clinical study of Snuhi Ksheera Sutra, Tilanala Kshara Sutra and Apamarga Kshara Sutra in Bhagandara (Fistula in Ano). AYU (An International Quarterly Journal of Research in Ayurveda). 2012; 33(1):p 85-91.
7. David E. Beck, Steven D. Wexner et al, Gordon and Nivatvong's, Principles and Practice of Surgery for the Colon, Rectum and Anus, Anorectal abscess and Fistula-In-Ano, Thieme Medical Publishers, New York, 2019 Fourth Edition, Pp-194.
8. Khadka, T.R. A Clinical Comparative Study of Apamarga Kshara Sutra and Kadali Kshara Sutra in the Management of Arsha. International Research Journal of Ayurveda and Yoga, 6(12), 7-13-2023.
9. Besendörfer M, Langer L, Carbon R, Weiss C, Müller H, Diez S. Treatment of pediatric fistula-in-ano-Sphincter-sparing non-cutting seton placement as the future treatment of choice? Front Surg. 2023 Apr 11;10:1144425.
10. Meena R, Dudhamal TS, Gupta SK, Mahanta V, Wound healing potential of Panchavalkala formulations in a post fistulectomy wound. Anc Sci Life, 35 (2) (2015), Pp- 118-121.