IAMJ

INTERNATIONAL AYURVEDIC MEDICAL JOURNAL

Case Report ISSN: 2320-5091 Impact Factor: 6.719

MANAGEMENT OF RECURRENT FISTULA IN ANO IN PEDIATRICS WITH *KSHARASUTRA* –A CASE REPORT

Kumar Siddayya Kanthimath[1], C. Thyagaraj[2]

[1]Ph D Scholar, Ayurveda Mahavidhyalaya Hubballi. Associate Professor Department of Shalya Tantra, DGM Ayurvedic Medical College, Gadag.
2Prof and H.O.D. Dept of Shalya Tantra, Ayurveda Mahavidhyalaya Hubballi.

Corresponding Author: kumar.kanthimath@gmail.com

https://doi.org/10.46607/iamj5411072023
(Published Online: July 2023)
Open Access

Article Received: 16/06/2023 - **Peer Reviewed:** 08/06/2023 - **Accepted for Publication:** 21/07/2023.

Check for updates

ABSTRACT

Background: Fistula in ano is a complex disease, even in technically advanced era still difficult to treat because of its complexity, and reoccurrence. As this disease is treated in surgical discipline Choosing the right surgery has been made more difficult. Many surgical techniques have been added in the last decade. Pediatric fistula-in-ano is a rare kind with added difficulty to treat. This article is about a case report on pediatric fistula treated successfully with *Kshar Sutra.* **Objective**: Management of recurrent Fistula in ano in Pediatrics with *Kshara Sutra*. **Materials and methods**: The subject presented with pain, swelling, and pus discharge per anal region since 2 months. On clinical examination, the case was diagnosed and treated as a fistula in ano. In Ayurveda this condition can be correlated with *Bhagandara* and treatment principles include *kshara sutra* ligation. **Results**: Clinically symptoms like pain, swelling and pus discharge were completely reduced. On examination, the fistula tract is completely healed. **Conclusion**: Adopted Ayurvedic treatment has shown promising results in the management of recurrent fistula in ano in pediatrics.

Keywords: Anal fistula, Fistula-in-ano, pediatric, kshara sutra,*bhagandara*

INTRODUCTION

Fistula in ano is also referred to as *Bhagandara* in Ayurvedic classics explained in sushrutha samhitha.[1,2,3]Abnormal connection between the anal canal or rectum to the exterior. Anal fistulas occur because of many reasons like anal gland infections, inflammatory bowel disorders, abscesses around the anal region, compromised immune conditions, and so on. But most commonly the result of an ano-rectal abscess[4]. Risk factors for fistula include lowered immunity, Obesity, Diabetes, Smoking, and a sedentary lifestyle. Classification of the fistula is determined in relation to the anal sphincters and dentate line. Commonly patients present with Boil with pouting granulation around the anal region. Swelling, Pain, and pus discharge are the most frequent presenting complaints. The discharge from the external opening is mucous or pus mixed with stool. Although benign, the condition can cause significant distress and embarrassment to the patient. Treatment focuses on control of the infection, pain management, prevention of recurrence and maintaining fecal continence. Many treatment options are available[5], and novel treatments are steadily proposed and tested. The incidence rate of fistula in ano varies from 265 to 38%. In India, the prevalence rate is 12.3 cases per 100000 population in men and in women 5.6 cases per 100000 population. The mean patient age is 38 years.

PATIENT INFORMATION AND CLINICAL FINDINGS

History: At the age of six months the baby's mother noticed a swelling in the perianal skin which burst open leading to pus discharge. Every 6-7 days there was a pus collection. During pus collection the child used to suffer from fever, myalgia, and loss of appetite. Recurrent pus discharge even after repeated surgery made the parents into an intractable situation. (history taken from baby's mother) A 10-month-old child with boil and often pus discharge in the perianal region came to our hospital. The subject was diagnosed with a fistula in ano and had undergone surgery twice for the same condition. Every six-seven days there is a pus collection and it bursts open on the next day. The examination was done in the lithotomy position. On inspection presented with a wound at 2'0' clock position (fig no 1) with pus discharge. We could find watery pus discharge on pressing aberrant areas with aggravated pain. Per rectal examination carried out under the supervision of an anesthetist because the subject is an infant and there is an internal opening felt at 4 o'clock position.

TIMELINE:

SL NO	AGE OF THE BABY IN MONTHS	TYPE OF SURGERY	OUTCOME
1	6th month	Fistulectomy	Reoccurrence
2	8th month	Fistulectomy	Reoccurrence

The subject developed a complaint of pus discharge, and pain per anal region at the age of six months it was diagnosed as a peri anal abscess and operated on by a pediatric surgeon. Again at the age of 8months, the same symptoms recurred, 2nd time operated on for the same cause. At 10 months of age, the subject was brought to our hospital with an above-said complaint for Ayurveda management.

DIAGNOSIS:

On clinical examination in the left lateral position (fig no 2) there was an external opening at 5 o'clock position. By pressing upon the surrounding part there was pus discharge. per rectal examination carried out in the presence of an anesthetist. Per rectally internal opening felt at 4 o'clock position. **As high-resolution ultrasound – perianal region** - an oblique tract is seen from the external opening (External opening at 5 o'clock) traversing along with the perineal region extending anterosuperiorly for a distance 1.7 cm length up to the external sphincter.

THERAPAETIC INTERVENTION:

Considering the age (pediatric) and condition of the subject case posted for partial fistulectomy and *kshara sutra* ligation was chosen.

Type of Anesthesia: General Anesthesia

OPERATIVE PROCEDURE:

Position of the patient lithotomic. After the examination, Methylene blue dye is injected through the external opening, and the dye is seen in the anal canal. That confirmed the internal opening. Gently mosquito artery forceps are poked into the external opening and dilated. The external sphincter was identified and the tract was separated by dissection, partially tract is excised. With the help of a probe again tract and internal opening are identified and the *kshara sutra* is passed and legated.(fig no 3 & 4)Homeostasis achieved bandaging done. Every day after surgery advised sitz bath and dress. After a week *Ksharasutra* changed under short general anesthesia with the help of an anesthetist. Again sitz bath and bandaging continued. *Kshara sutra* changed 3 times. *Ksharasutra* falls off after 3rd sitting of the kshara sutra changing.

FOLLOW-UP AND OUTCOME:

On the 10th day of primary threading kshara sutra was ligated (fig no 4)and observed improvements. Like that totally 3 times kshara sutra changed. (fig no 5) After 3rdksharasutra on the seventh day kshara sutra falls along with stool. (fig no 7) The Fistulas tract was completely healed. The wound took 45 days to heal. (fig no 8) Every month the child is examined for any signs of recurrence. After six months of follow-up (fig no 9) there were no signs of recurrence.

OBSERVATION:

Sl no	Date	Kshara sutra	Observation
1	24-5-22	Apamargakshar sutra	0.5 cm track cutting, pus discharge ++, wound size 1cm. pain reduced
2	4-06-22	Apamargakshar sutra	0.5 cm track cutting, pus discharge nil, wound size 0.5cm. pain reduced
3	14-06-22	Apamargakshar sutra	The complete track was cut, pus discharge nil, wound size 2-3 mm. Pain reduced

DISCUSSION

Fistula in ano is a familiar perianal disease featured with often pus discharge. Anorectal abscess usually transforms into a fistula causing potentially crypto-glandular infection around the anal region[9]. Fistula in ano encountered in infants below 12 months with male predominance. This sex-based difference may be explained by androgen excess or androgen-sensitive glands. The abscess typically presents as a fluctuant tender mass in the perianal region, most commonly in the 3 o'clock and 9 o'clock positions[10]. Thorough per rectal examination, understanding the tract in relation to the sphincter is important. It is difficult to understand the anatomy of infants and children. The external opening of the fistula is commonly located lateral to the anal canal than midline. Symptoms of fistula in ano vary among the patients like weeping fistula and continuous pus discharge, in some patients collection of pus once a week or in a fortnight and it bursts open, with pouting unhealthy granulation. In this subject every week there was a collection of pus. The baby used to suffer from fever the next day it burst open since many months. Ultrasonography and MRI are better investigation tools to diagnose the nature of the tract, internal opening, length, number of tracts, and its course. Sometimes fistula in ano is closely related to perianal trauma, tuberculosis, cancer, Immuno deficiency, etc. always fistula in ano is classified in relation to the dentate line (high anal, low anal) and sphincters (parks classification).

In this case through history, clinical examination, radiological investigation, and intraoperative observation it was recurrent fistula in ano. As per the statistics it showed fistula in ano is a rare presentation in children with more suffering. An added difficulty in children is history taking, clinical examination, and bandaging. Subjective parameters like pain and burning sensation assessment are difficult to elicit. In this condition, as the subject underwent fistulectomy two times, eventually anatomy was disturbed, and with

more fibrous tissue was. So a partial fistulectomy (removing all fibrous tissue and gentle curettage) and *Ksharasutra* ligation was planned.

Convert in sentence.

KSHARA SUTRA: It is one of the medicated threads prepared out of *Snuhiksheera*, *Apamargakshar*, and *Haridra*.

Sl No	Drug	Coatings	Action
1	Snuhiksheera	11	Binding agent
2	Apamargakshar	07	Corrosive
3	Haridra	03	Antiseptic and Healing

After primary threading, every 10th-day observation was done for cutting time, pus discharge, wound size, and pain while palpating per anal region. (fig no 5,6,7,8,9) Gradually the wound started healing with a reduction in pus discharge and wound size. For complete healing of the fistula tract, it took around 45 days.

CONCLUSION

Anal fistula is always complex to understand and to treat. There is a Lack of medical management. The operative procedure is the main method to treat the present scenario. The aim is to enhance prognosis and reduce complications and recurrence. subject underwent partial fistulectomy and *kshara sutra* ligation which is the most classic therapeutic schedule for better outcome. *Kshara sutra* ligation is a popular method in fistula references are available in Ayurveda *Sushrutha samhitha*. Much research was conducted on *Ksharasutra* treatment in fistula in ano. In this article –the case report has shown that fistula in ano in pediatrics rare anomaly but can be treated successfully. Similar cases can be benefitted from this report.

PATIENT CONSENT:

Informed consent was obtained from the patient for documentation and publication of case history.

Financial support and sponsorship- nil

Conflict of interest: None

ACKNOWLEDGEMENT:

Dr Santosh Belavadi Principal DGMAMC Gadag

Dr M.D. Samudri Professor and H.O.D. Dept of Shalyatantra DGMAMC Gadag

Dr. H.L. Giraddi General Surgeon Janani Nursing Home Gadag.

Dr Shashidhar Emmi Professor and H.O.D. Dept of Anatomy. DGMAMC Gadag.

REFERENCES

1. Acharya Sushruta, Sushruta Samhita; Dalhana, Nibandhasangraha commentary; Edited by Jadavji Trikamji Aacharya and Narayan Ram Aacharya; Chowkhambha Surabharati Prakashaana, Varanasi, 1stedition; Reprint 2008; Sutrasthana 33/4, pp.144.
2. Shashtri A.D. Sushrut Samhita in Ayurveda Tatvasandipika, chaukhamba Sanskrit sansthan, Nidanasthanam chapter Su. Ni. 4/12, p-246 .
3. Tripathi Bhrmanand Astanga hridyam, nirmala hindi commentary, chaukhambha Sanskrit sansthan Delhi, Uttarsthan chapter28/5,p-109

4.https://www.fascrs.org/patients/diseasecondition/abscess-andfistula-expandedinformation dated 25.3.18.

5. Bailey and Love's Short Practice of Surgery edited by Hodder Arnold publication, 26th Edition, Anus and Anal Canal, Fistula-in-ano, 1259. Norman S. Williams, Christopher J.K. Bulstrode, P. Ro-nan O'Connell,
6. Rojanasakul A. 2009. LIFT procedure: a simplified technique for fistula-in-ano. Tech Coloproctol, 2009 Sep; 13(3): 237– 40. Epub Jul 28.
7. Sahu, M. 2015. A manual on fistula in ano and kshara sutra therapy, published by NRC, Dept Of shalyatantra, IMS, BHU, first edition. Shashtri A.D. Sushrut Samhita in Ayurveda Tatva Sandipika, chaukhamba Sanskrit sansthan, Nidansthana chapter Su. Ni. 4/4,p-244.
8. Shashtri A.D. Sushrut Samhita in Ayurveda Tatva Sandipika, chaukhamba Sanskrit sansthan, Nidanasthanam chapter Su. Ni. 4/12, p-246 .
9. Park J. Management of perianal abscess and fistula-in-ano in infants and children. Clin Exp Pediatr. 2020 Jul;63(7):261-262. doi 10.3345/cep.2020.00150. Epub 2020 Mar 23. PMID: 32252144; PMCID: PMC7374006.

10. Gu MZ, Xu HM, Chen F, Xia WW, Li XY. Pediatric temporal fistula: Report of three cases. World J Clin Cases. 2021 Sep 16;9(26):7811-7817. doi: 10.12998/wjcc.v9.i26.7811. PMID: 34621831; PMCID: PMC846223

Source of Support: Nil
Conflict of Interest: None Declared

How to cite this URL: Kumar Siddayya Kanthimath & C.Thyagaraj: Management of recurrent fistula in ano in pediatrics with ksharasutra –a case report. International Ayurvedic Medical Journal {online} 2023 {cited July 2023} Available from: http://www.iamj.in/posts/images/upload/1785_1790.pdf

PHOTO AND VIDEO DOCUMENTATION

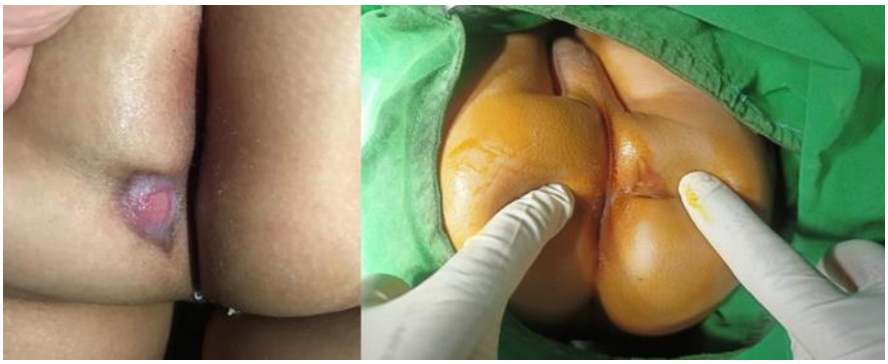


Fig no 1 clinical examination and pre-operative

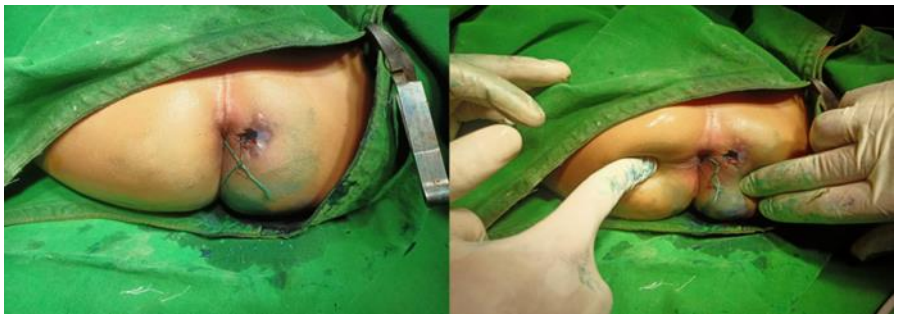


Fig no 2 during the operative procedure, dye was injected, kshara sutra ligation

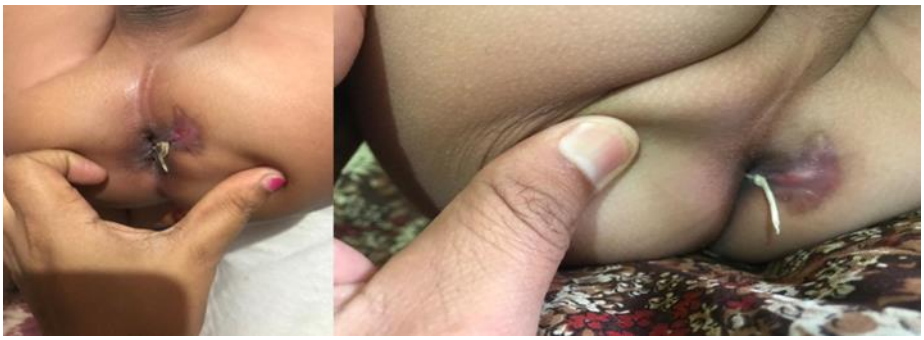


Fig no 3 kshara sutra changed on 2nd and 3rd sitting

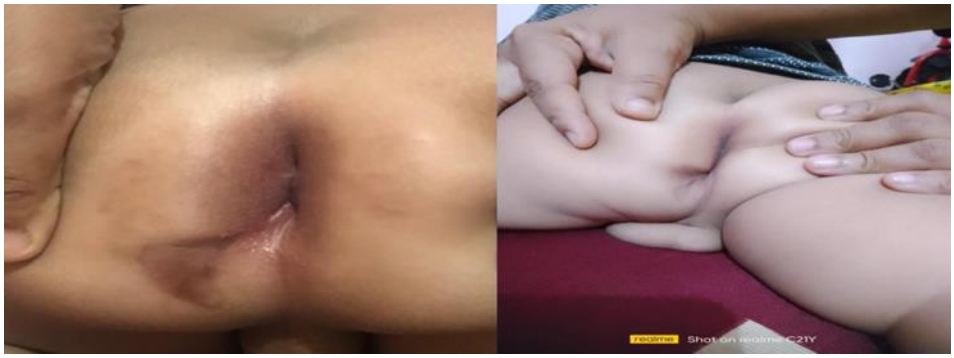
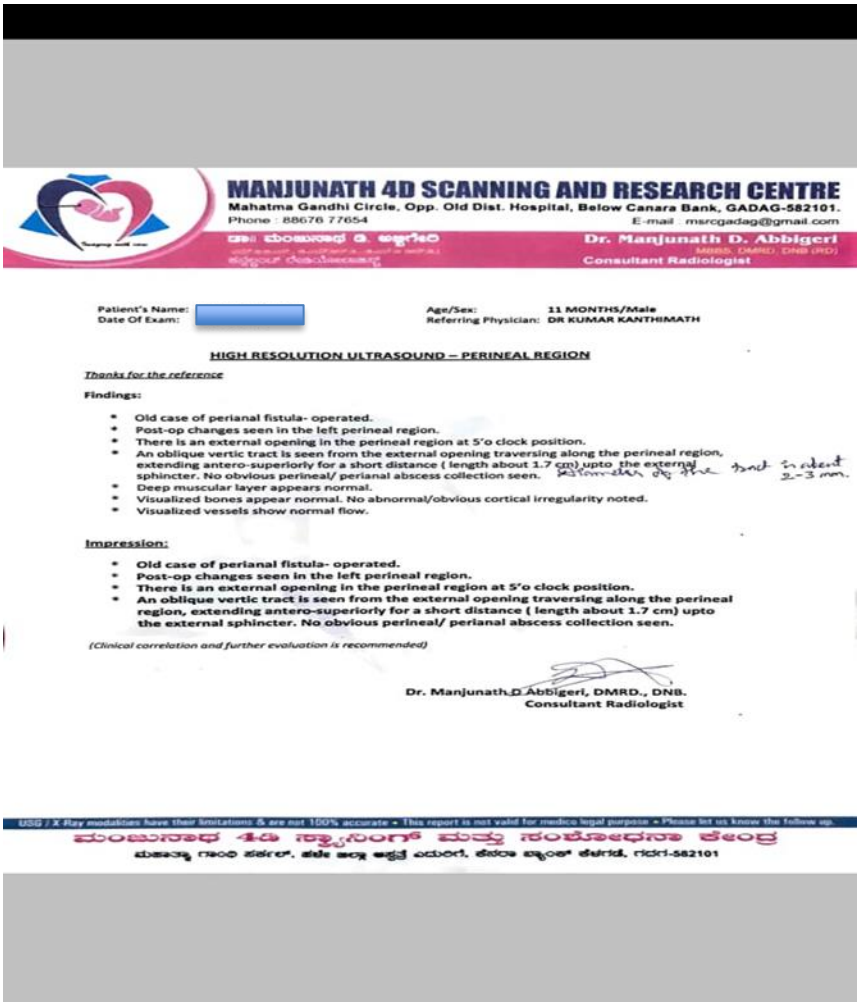


Fig no 4 follow up tract completely healed



MANJUNATH 4D SCANNING AND RESEARCH CENTRE
Mahatma Gandhi Circle, Opp. Old Dist. Hospital, Below Canara Bank, GADAG-582101.
Phone : 88676 77654
E-mail : msrcgadag@gmail.com
Dr. Manjunath D. Abbigeri
MBBS, DMRD., DNB (RD)
Consultant Radiologist

Patient's Name:
Date Of Exam:
Age/Sex: 11 MONTHS/Male
Referring Physician: DR KUMAR KANTHIMATH

HIGH RESOLUTION ULTRASOUND – PERINEAL REGION

Thanks for the reference

Findings:

- Old case of perianal fistula- operated.
- Post-op changes seen in the left perineal region.
- There is an external opening in the perineal region at 5'o clock position.
- An oblique vertic tract is seen from the external opening traversing along the perineal region, extending antero-superiorly for a short distance (length about 1.7 cm) upto the external sphincter. No obvious perineal/ perianal abscess collection seen.
- Deep muscular layer appears normal.
- Visualized bones appear normal. No abnormal/obvious cortical irregularity noted.
- Visualized vessels show normal flow.

Impression:

- **Old case of perianal fistula- operated.**
- **Post-op changes seen in the left perineal region.**
- **There is an external opening in the perineal region at 5'o clock position.**
- **An oblique vertic tract is seen from the external opening traversing along the perineal region, extending antero-superiorly for a short distance (length about 1.7 cm) upto the external sphincter. No obvious perineal/ perianal abscess collection seen.**

(Clinical correlation and further evaluation is recommended)

Dr. Manjunath D Abbigeri, DMRD., DNB.
Consultant Radiologist

USG / X Ray modalities have their limitations & are not 100% accurate • This report is not valid for medico legal purpose • Please let us know the follow up.