WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 13, Issue 2, 1010-1015. Case Study ISSN 2277–7105

INTEGRATIVE MANAGEMENT OF ANAL FISTULA: A CASE REPORT

Ranjan Kumar Kasta[1]*, Bipin Bihari Khuntia[2] and Ajit Kumar Pradhan[3]

[1]M.S. (Ayu) Professor, Department of Shalya Tantra Gopabandhu Ayurveda Mahavidyalaya and Hospital, Puri, Odisha.

[2]Ph. D. (Ayu) Principal, K.A.T.S Ayurveda College, Ankuspur, Ganjam, Odisha.

[3]M.S. (Ayu) Medical Officer AYUSH (Ayurveda) Department of AYUSH All India Institute of Medical Sciences, Bhubaneswar, Odisha.

Article Received on
04 December 2023,

Revised on 24 Dec. 2023,
Accepted on 14 Jan. 2024

DOI: 10.20959/wjpr20242-31068

***Corresponding Author**
Dr. Ranjan Kumar Kasta
M.S. (Ayu) Professor, Department of Shalya Tantra Gopabandhu Ayurveda Mahavidyalaya and Hospital, Puri, Odisha.

ABSTRACT

Introduction: An anal fistula is an abnormal tract communicating the anal canal internally and perianal skin externally lined with granulation tissues. Although not life-threatening, its management is challenging due to recurrence especially. *Ksharasutra* therapy is a para surgical technique practiced in India for treatment of anal fistula with high success rate. **Case presentation:** A 56-year-old male patient came to *Shalya Tantra* OPD with complaint of pus discharge from the perianal region with mild pain and itching for 5 years. Examination revealed hyperpigmented left perianal skin with multiple external openings at 1' o clock position below the scrotum approximately 4 centimeters from the anal verge, and another was at 4 'o clock position nearly 2 centimeters from the anal verge through which little pus was oozing and induration on palpation. Magnetic resonance fistulogram confirmed transphincteric anal fistula with multiple external opening. Patient treated through integrative approach. *Ksharasutra* applied after partial fistulectomy. After 10 month of treatment the fistula tract healed completely. **Discussion:** Fistulectomy or fistulotomy is the standard conventional treatment for anal fistula. *Ksharasutra* therapy is an effective and safe treatment method for healing the fistulous tract with less recurrence rate. **Conclusion:** Integrative approach reduced the treatment period and maintained the normal structure of the perineum with minimal scar. The patient was recovered without any inconvenience.

KEYWORDS: Anal fistula, Fistulectomy, *Ksharasutra* therapy.

INTRODUCTION

An anal fistula is an abnormal communication between the anal canal and perianal skin lined with granulation tissues.[1] The estimated prevalence of anal fistula is 1% to 2% per 10,000 patients, commonly found in males than females.[2] Although not life-threatening, it causes discomfort due to pain, swelling, and pus discharge and affects daily routine.

Based on signs and symptoms, anal fistula can be correlated with *Bhagandara* in Ayurveda. Preference for treatment of anal fistula depends on the type of fistula, location of internal and external openings, course of tracts, and other precipitating factors. Conventional management includes fistulotomy, fistulectomy, seton placing, ligation of intersphincteric fistula tract, advancement of flaps, fibrin glues, and stem cell methods.

Acharya Sushruta described the management of *Bhagandara* as taking care of the surrounding structures during the excision of fistula tracts. Currently, *Ksharasutra* therapy is used for the treatment of anal fistula with least recurrence and incontinence.[3]

In this case, we preferred partial fistulectomy with *Ksharasutra* therapy to reduce treatment period, recurrence and minimal structural damage of the perineal tissues.

Patient Information and Clinical finding

A 56-year-old male came to *Shalya Tantra* OPD of Gopabandhu Ayurveda Mahavidyalaya and Hospital, Puri, Odisha, with a complaint of pus discharge from the perianal region with mild pain and itching for 5 years. Initially, the patient had mild symptoms but worsened as time went on. The patient did not seek any medical treatment previously because the disease did not affect his daily routine, leading to present intractable conditions. He had no history of diabetes, inflammatory bowel disease, HIV, sexually transmitted disease, tuberculosis, malignancy, and prior anorectal surgery. His blood pressure was 124/78 mmHg, pulse rate was 82 beats per minute, respiratory rate was 16 per minute, and oxygen saturation was 100% at room air. He was a nonsmoker, nonalcoholic, occasionally eating pan, and had no family history related to this disease.

Visual examination presented that hyperpigmented left perianal skin with multiple external openings at 1’ o clock position below the scrotum approximately 4 centimeters from the anal verge, and another was at 4 ‘o clock position nearly 2 centimeters from the anal verge

through which little pus was oozing. On palpation, induration was felt over the left gluteal area. The digital rectal examination could feel normal anal sphincter tone and anal mucosa with a small pit at the anterior midline of the anal canal.

A magnetic resonance fistulogram revealed a long transphincteric ano-cutaneous fistulous tract with its internal opening into the anal canal at 12' o clock position and branching two external openings in the left anterior inferior gluteal region near the midline. The tract length measures 59 millimeters, and the thickness is 7.1 millimeters. Another long transphicteric tract with its internal opening into the anal canal at 2' o clock position and external opening in the left side root of the scrotum. The maximum length of the tract measures 10 centimeters, and the thickness is 3.1 millimeters. Bilateral ischiorectal fossa was normal.

Diagnosis

Based on patient information, visual examination, and magnetic resonance fistulogram report, it was diagnosed as a transphincteric anal fistula with multiple openings.

Investigations

Hematological investigations showed complete blood counts, ESR, PT(INR), and fasting glucose were within normal limits. Viral serological investigations resulted in negative for hepatitis B and hepatitis C virus and nonreactive for HIV I & II.

Timeline

Timeline	Clinical events
February 2021	Visited *Shalya Tantra* OPD. Admitted in IPD. Partial fistulectomy and primary *Ksharasutra* ligation done. Patient discharged after 1st *Ksharasutra* change.
March 2021 to May 2021	*Ksharasutra* changed in every 7 days interval. Mild pain and pus discharge.
June 2021 to August 2021	*Ksharasutra* changed in every 7 days interval. No pain, scanty pus discharge.
September 2021 to October 2021	*Ksharasutra* changed in every 7 days interval. No pain and pus discharge.
November 2021	Fistula tract healed completely.

Therapeutic intervention

Complete open or excision of the fistula tract is the standard treatment for anal fistula. As per Sushruta Samhita, *Ksharasutra* treatment was mentioned. An integrative approach was preferred to avoid a prolonged treatment period and recurrence of anal fistula. The integrative

approach was a combination of partial fistulectomy with *Ksharasutra* application in anal fistula.

Surgical intervention

Tetanus Toxoid 0.5 ml injected intramuscularly 7 days before surgery. Under aseptic conditions and spinal anesthesia, probing was done through external openings, and a partial fistulectomy was done. After partial fistulectomy, *Ksharasutra* was ligated through the external openings to the rectum and between external openings.

Internal medication

Antibiotics were prescribed for 5 days after surgery. The use of analgesics was advised as needed. The following Ayurvedic medicines were prescribed for one month.

1. *Chirubilwadi Kashayam* – 20 ml with 20 ml of lukewarm water before breakfast and dinner.
2. *Triphala Guggulu* tablet – 2 tablets in the morning and evening after meal.
3. *Gandhak Rasayan* tablet – 2 tablets in the morning and evening after meal.

External application

The patient was advised for sitz bath twice daily and to maintain anal hygiene. Mupirocin, 2% ointment, was applied locally for 7 days during daily dressing.

Dietary advice

Intake of oily, spicy, salty, and fast food was avoided. He was advised to take high-fiber food and drinking of adequate water.

Follow-up and Outcomes

Ksharasutra changing was continued every week. He complained of transient infection, mild pain, burning sensation, little discharge, and itching during the initial few days of treatment. No internal medications were prescribed for these complaints. Changing *Ksharasutra* and maintaining anal hygiene alleviated these symptoms. After 43 times changing of *Ksharasutra*, the total tract was cut and healed completely. No recurrence was observed after 2 years of follow-up.

DISCUSSION

The treatment of anal fistula depends on the location of the fistula, external or internal sphincter involvement, and its precipitating factors.[4] Mostly anal fistula is treated surgically.

Fistulectomy or fistulotomy is the standard conventional treatment for anal fistula. In fistulotomy, wound size is large, but in fistulectomy, the healing period is prolonged. In both cases, preservation of sphincter function and prevention of recurrence are disadvantages.

Ksharasutra therapy is an effective and safe treatment method for healing the fistulous tract. Anal incontinence is nil in *Ksharasutra* therapy. The recurrence rate is less in *Ksharasutra* therapy than in conventional therapy.

In this case, there were multiple external openings, and the length of the fistulous tracts was too long. An integrative approach was performed to reduce the treatment period and recurrence rate and to avoid injury of internal anal sphincter. In the integrative approach, partial fistulectomy was initially done, and then *Ksharasutra* was ligated through the remaining fistula tract.

In Ayurveda, *Chirubilwadi Kashayam* is indicated for internal hemorrhoid, anal fistula and constipation. *Chirubilwa* has wound healing and anti-inflammatory properties that accelerate the healing of the fistula tract.[5] *Triphala* has mild laxative action, anti-inflammatory, antimicrobial, and wound-healing properties.[6] The anti-inflammatory property of *Guggulu* helps in reducing inflammation in the anal fistula.[7] *Gandhak Rasayan* reduces pain and has antibacterial and antifungal action.[8]

CONCLUSION

An anal fistula with an extension to the root of the scrotum and multiple openings is considered a complex type of fistula. Partial fistulectomy with *Ksharasutra* ligation reduced the treatment period and maintained the normal structure of the perineum with minimal scar. The patient was recovered without any inconvenience.

Conflict of interest statement

There is no conflict of interest.

Funding

Not applicable.

REFERENCES

1. Williams NS, Bulstrode CJK, O'Connell PR, Arnold H. Bailey and Love's Short Practice of Surgery Anus and Anal Canal, Fistula-in-ano. Oxford CRC Press, Taylor and Francis, 2016; 27: 1262.
2. Hokkanen SR, Boxall N, Khalid JM, Bennett D, Patel H. Prevalence of anal fistula in the United Kingdom World J Clin Cases, 2019; 7: 1795–804.
3. Panigrahi HK, Rani R, Padhi MM, Lavekar GS. Clinical Evaluation of Kshara sutra Therapy in the management of bhagandara (Fistula- in-ano) – A prospective study Anc Sci Life, 2009; 28: 29–35.
4. https://www.ncbi.nlm.nih.gov/books/NBK560657/
5. Somwong K, Lertpatipanpong P, Nimlamool W, Panya A, Tragoolpua Y, Yongsawas R, Gritsanapan W, Pandith H, Baek SJ. Effect of Holoptelea integrifolia (Roxb.) Planch. n-Hexane Extract and Its Bioactive Compounds on Wound Healing and Anti-Inflammatory Activity. Molecules, 2022; 4, 27(23): 8540. doi: 10.3390/molecules27238540. PMID: 36500633; PMCID: PMC9738392.
6. Peterson CT, Denniston K, Chopra D. Therapeutic Uses of Triphala in Ayurvedic Medicine. J Altern Complement Med, 2017; 23(8): 607-614. doi: 10.1089/acm.2017.0083. Epub 2017 Jul 11. PMID: 28696777; PMCID: PMC5567597.
7. Mehra R, Makhija R, Vyas N. A clinical study on the role of Ksara Vasti and Triphala Guggulu in Raktarsha (Bleeding piles). Ayu, 2011; 32(2): 192-5. doi: 10.4103/0974-8520.92572. PMID: 22408301; PMCID: PMC3296339.
8. Deshpande R, Prakash N S, Swaroop M, Muralimohan M, Shetty A. A randomised controlled trial to evaluate the effect of GandhakaRasayana rectal suppository in post operative pain management in ano-rectal disorders. J Ayurveda Integr Med, 2022; 13(1): 100485. doi: 10.1016/j.jaim.2021.07.001. Epub 2022 Feb 1. PMID: 35120806; PMCID: PMC9034460.