

Integrated Management of Complex Fistula-In-Ano in a Patient with Ulcerative Colitis using Kshara Sutra: A Unique Case Study

Dr. Dhananjay Kumar Jaiswal¹, Dr. Krishna Prasad Gyawali²

¹B.A.M.S, Medical Officer at District Ayurveda Health Centre, Biratnagar Morang Nepal

²Consultant Ayurveda Surgeon, Ayurveda Hospital Naradevi Kathmandu Nepal

ABSTRACT

Introduction: Ulcerative colitis (UC) is a chronic inflammatory bowel disease characterized by mucosal inflammation of the colon and rectum often leading to debilitating symptoms and complications. Fistula-in- Ano is a rare complication of UC, which is an abnormal tract connecting the anal canal to the skin surrounding the anus, further complicating management and impairing patients' quality of life which poses significant challenges in management due to its chronic and recurrent nature. Kshara Sutra, an Ayurvedic parasurgical procedure involving the use of medicated thread, has shown promising results in the treatment of complex Fistula-in-Ano in a patient with ulcerative colitis.

Aim: To evaluate the efficacy of Kshara Sutra in the management of complex Fistula-in-Ano in a patient with Ulcerative colitis.

Material and Methods: A Hindu, married 56 yrs. old male patient came in Shalya Department of Naradevi Ayurveda Hospital, Kathmandu Nepal with a chief complaints of recurrent episodes of bloody diarrhea, abdominal pain, and perianal discharge over a span of four years. Diagnostic workup revealed extensive colonic involvement consistent with UC on colonoscopy and imaging confirmed the presence of a fistula-in-ano. The patient was diagnosed as a case of Fistula-in Ano with clinical findings & examination done. Then Kshara sutra Ligation was planned along with internal medications.

Results/Discussions: After 6 months of treatment, result was achieved remarkably.

Conclusion: This case highlights the potential efficacy and safety of Kshara Sutra therapy as an adjunctive and safest treatment modality for managing complex Fistula-in-Ano in patients with underlying ulcerative colitis.

KEYWORDS: Kshara Sutra, Inflammatory Bowel Disease, Ulcerative Colitis, Fistula-in-Ano, colonoscopy.

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INTRODUCTION

Inflammatory bowel disease (IBD), including ulcerative colitis (UC) and Crohn's disease (CD), is a chronic idiopathic disease characterized by intestinal inflammation. In recent years, IBD has become a global disease with higher incidence and prevalence in the course of industrialization^{1, 2}. IBD is associated with a variety of complications³, such as strictures⁴, fistulas⁵, infections⁶, and cancers⁷. Perianal fistula is the most common of all fistulas, affecting nearly a quarter of the CD population however very rare in a patient with UC. UC is a disease of unknown aetiology characterized by inflammation of the mucosa and sub-mucosa of the colon and rectum lining, causing ulcers⁸. The aetiology involves

various interactions between the environment, immune system, gut microbiome and a genetic predisposition to disease⁹. UC often presents with blood in the stool and diarrhea. Common symptoms include urgency, incontinence, fatigue, increased frequency of bowel movements, mucus discharge, nocturnal defecations and abdominal discomfort; fever and weight loss can also be noticed along with other extra intestinal features. Fistula-in-Ano is a very rare complications of UC. Acharyas described fistula in ano in the name of Bhagandar in Ayurveda which proceeds with the formation of Bhagandar pidika¹⁰ and in the modern medicine described as a result of cryptoglandular infection, a sequel of

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anorectal abscess or secondary to some diseases like tuberculosis, pelvic inflammations, UC, etc.¹¹

CASE PRESENTATION

A 56 yrs. old married male diagnosed case of complex fistula in-ano and ulcerative colitis from Bharatpur Hospital was presented in shalya department of Nardevi Ayurveda Hospital Kathmandu in July 2023 with OPD No. 76266 with a chief complaints of: Abdominal Pain on/off since 4 years and discharge around perianal region since 3 months.

History of present illness: According to the patient he was asymptomatic 4 years ago then he gradually developed abdominal pain on/off at bilateral Iliac Region which was gradual in onset and dull ache type without any aggravating and relieving factor associated with bleeding per rectum on/off and burning sensations on/off.

He also developed wound around perianal region which was associated with pus discharge, Itching and burning sensations on/off since 3 months. Then he went to Bharatpur Hospital where he was advised to do colonoscopy and MRI fistulogram as he had a surgical history of fistulectomy including incision and Drainage 4 times in the past and history of 10kg weight loss in 2 years and Diagnosed as a case of Complex fistula in-ano with Ulcerative colitis.

History of Past Illness: - No history of diabetes mellitus, hypertension, Thyroid disorders etc.

Family History: - No any significant family history i.e. no member of the family had history of such illness.

Surgical History: - Fistulectomy 4 times in the past including Incision and Drainage.

Drug and Allergic History:-No history of allergy to any drugs or food items.

Personal History:-

Diet	Non-vegetarian
Micturition	4 - 5 times/day, 0 - 1/night
Appetite	Decreased
Sleep	adequate, rarely disturbed
Bowel habit	Irregular sometimes loose sometimes hard ,stool containing mucus and blood on/off
Addiction	1.Cannabis at the age of 15 years for 2-3 years 2. smoking 2-3 sticks/day and tobacco chewing after the age of 18 years and left since 4 years.

General Examinations: -

General condition (GC): Fair and Alert

Pallor, Icterus, Lymphadenopathy, Cyanosis, Oedema, Dehydration (PILCyOD) –Nil

Clubbing(C) - Mild

Pulse	60/min
Blood pressure	90/70 mm of Hg
Height	140cm
Weight	62
Respiratory rate	14/min
Temperature	Normal
Tongue	Slightly coated
SpO2	97%

Per Rectal (P/R):- Examination revealed multiple external openings near the anal verge with tenderness and purulent discharge consistent with a complex fistula-in-ano.

Systemic Examination: - On examination, patient was found to be conscious and well oriented to time, place and person. Assessment of Central nervous system, cardiovascular system and musculoskeletal system of patient was found within normal limits clinically.

Respiratory system: - Decreased air entry in the Bilateral Lower lobes of lungs was found.

On per abdomen examination: - Tenderness was present at bilateral iliac fossa region.

Blood investigation: - Blood investigations BT, CT, CBC, Serology, RBS, RFT, LFT, and Urine RE/ME values were within normal limit.

Colonoscopy Findings: - (Fig.1) Colitis? Etiology with perianal fistula (r/o crohn's disease), Biopsy taken from caecum

Histo-pathological Findings: - (Fig.2) Active colitis

Perianal MRI Fistuogram Findings: - (Fig.3) Two Fistulous tract seen,

1. One of 6.5 cm in length, intersphincteric with internal opening at 7 o'clock position and the tract is approx. 4 mm in diameter

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2. Second is 9 cm in length, intersphincteric with internal opening at 5 o'clock position and the tract is approx. 7mm in diameter.

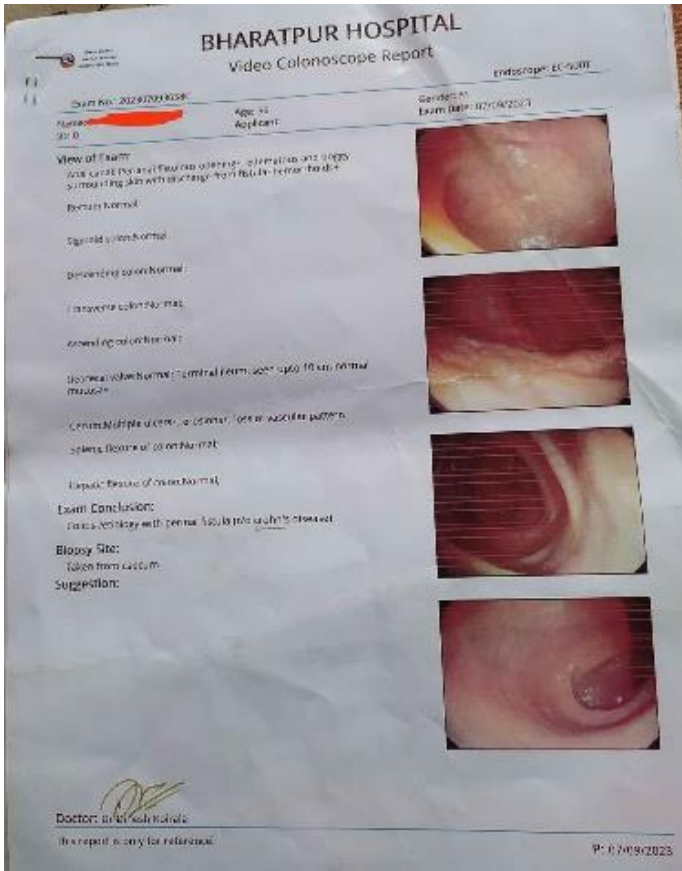


Fig. 1

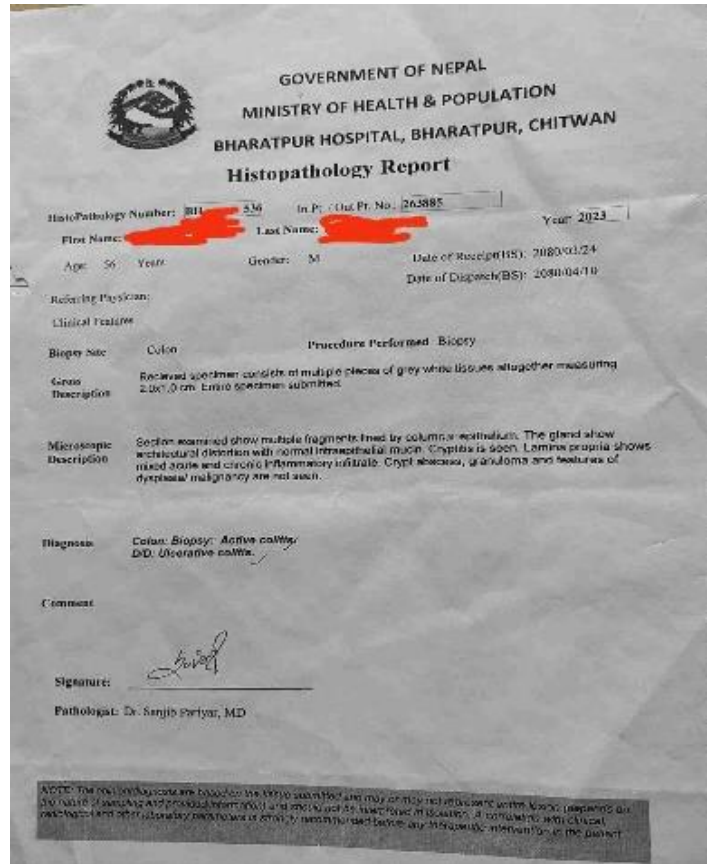


Fig. 2

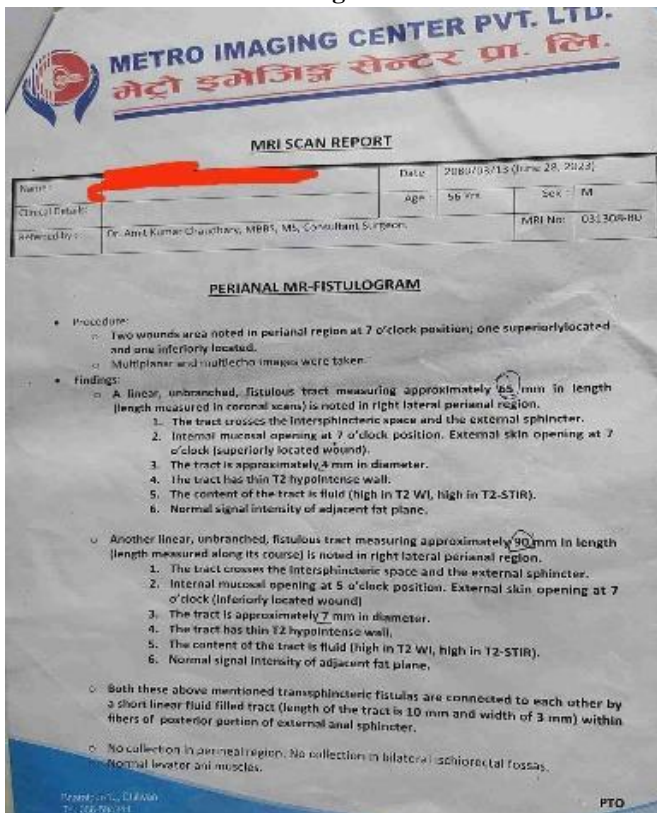


Fig. 3

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Treatment Planned:-

1. The patient was referred to OM hospital and Research Centre Pvt. Ltd. Kathmandu for the management of Active colitis where he was prescribed:

- ❖ Tab. Mesacol (Mesalazine) 400 mg PO X TDS and
- ❖ Tab. Rabium (Rabeprazole) 20mg PO X BD

2. Kshara Sutra Ligation under spinal Anesthesia.

Procedures:-

Written surgical consent of patient was taken and he was planned for Kshara Sutra ligation. Under sub- Arachnoid Blockage (SAB), primary threading done for multiple fistula in-ano with the help of Lidocaine Jelly 2% and probe. Patient

was advised to maintain local hygiene by sitz bath with Luke warm water and half teaspoon of sphatika bhasma and also take care of proper bowel habits. Daily dressing with jatyadi oil was done and Kshara Sutra was changed weekly by Rail-Road technique till complete cutting of the fistulous track.

OBSERVATIONS AND RESULTS

Over a period of six months, the patient experienced significant improvement, openings of the fistula closed completely, with no evidence of recurrence on clinical examination. No sign and symptoms of recurrence were observed. (Fig.4, 5)



Fig. 4. During Treatment



Fig. 5. After Treatment

DISCUSSION

Conventional treatments may not always achieve satisfactory outcomes, and patients may experience recurrence or complications. In such cases, exploring alternative or adjunctive therapies becomes crucial. The integration of complementary and alternative medicine (CAM) modalities, such as Ayurveda, into conventional medical practice has gained attention in recent years, especially in chronic conditions like IBD. Kshara Sutra, an Ayurvedic parasurgical procedure, involves the use of medicated thread coated with herbal extracts and alkalis. The integration of Kshara Sutra therapy into the management of complex fistula-in-ano in patients with UC represents a promising adjunctive treatment modality. In a complex fistula, without proctitis, many authors prefer loosely knotted setons to act as a drain along with drug treatment.^{12,13} However, it is common for complex fistulas to have rectal involvement, in which case the treatment of choice is the seton drain and in these patients, fistulotomy or rectal advancement flap should never be performed, because the chance for incontinence (40%), unhealed wounds (60%) and proctectomies (60%) are very high.¹⁴ So kshara sutra is the best option in these cases as the possibility of damage of anal sphincture muscle is less and chance of incontinence are null. Chakrapani Dutta was the first person to mention the method of preparation with its indication in fistula in Ano and haemorrhoid.¹⁵ In the present days the credit of standardization and development for practical use goes to Prof. P.J Deshpande, Dr. S.R. Gupta.¹⁶ Ksharasutra (medicated seton) therapy is being practiced in

India with high success rate (recurrence of 3.33%) in the management of complicated Fistula in Ano.¹⁷ and has also got validation in the modern books, and proven a successful method for treating fistula in ano and other ano rectal disorders.¹⁸ The ingredients used in apamarga kshara sutra are Snuhi ksheera, Apamarga Kshara and Haridra Powder. These ingredients have anti-inflammatory (shothahara), anti-microbial (vishaghna) and wound healing (Vrana ropanan) properties^{19, 20, 21, 22}, which may help in controlling infection, reducing inflammation, and promoting tissue repair within the fistulous tract. Additionally, the gradual cutting action of the thread may facilitate the removal of necrotic tissue and promote fibrosis, leading to closure of the fistula.

CONCLUSION

This case highlights the successful integrated management of complex fistula-in-ano in a patient with ulcerative colitis using Kshara Sutra therapy. The patient experienced significant improvement in symptoms and disease activity, emphasizing the potential role of complementary approaches in enhancing patient outcomes in complex inflammatory bowel disease-related complications. The observed improvement in fistula symptoms, reduction in discharge, and closure of the external opening suggest the effectiveness of this integrative approach. Further research and collaborative efforts are needed to establish the safety, efficacy, and optimal role of Kshara Sutra therapy in the management of complex fistula-in-ano associated with Ulcerative colitis.

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REFERENCES

- I. Ng, S.C.; Shi, H.Y.; Hamidi, N.; Underwood, F.E.; Tang, W.; Benchimol, E.I.; Panaccione, R.; Ghosh, S.; Wu, J.C.Y.; Chan, F.K.L.; et al. Worldwide incidence and prevalence of inflammatory bowel disease in the 21st century: A systematic review of population-based studies. *Lancet* 2017, 390, 2769–2778.
- II. Jairath, V.; Feagan, B.G. Global burden of inflammatory bowel disease. *Lancet Gastroenterol. Hepatol.* 2020, 5, 2–3.
- III. Kaur, M.; Dalal, R.L.; Shaffer, S.; Schwartz, D.A.; Rubin, D.T. Inpatient Management of Inflammatory Bowel Disease-Related Complications. *Clin. Gastroenterol. Hepatol.* 2020, 18, 1346–1355.
- IV. Rieder, F.; Zimmermann, E.M.; Remzi, F.H.; Sandborn, W.J. Crohn's disease complicated by strictures: A systematic review. *Gut* 2013, 62, 1072–1084.
- V. Geldof, J.; Iqbal, N.; LeBlanc, J.F.; Anandabaskaran, S.; Sawyer, R.; Buskens, C.; Bemelman, W.; Gecse, K.; Lundby, L.; Lightner, A.L.; et al. Classifying perianal fistulising Crohn's disease: An expert consensus to guide decision-making in daily practice and Clinical trials. *Lancet Gastroenterol. Hepatol.* 2022, 7, 576–584.
- VI. Kochar, B.; Cai, W.; Cagan, A.; Ananthakrishnan, A.N. Pretreatment Frailty Is Independently Associated With Increased Risk of Infections after Immunosuppression in Patients With Inflammatory Bowel Diseases. *Gastroenterology* 2020, 158, 2104–2111.
- VII. Shah, S.C.; Itzkowitz, S.H. Colorectal Cancer in Inflammatory Bowel Disease: Mechanisms and Management. *Gastroenterology* 2022, 162, 715–730.
- VIII. Collins P, Rhodes J. Ulcerative colitis: diagnosis and management. *Bmj.* 2006 10; 333(7563):340–3.
- IX. Kobayashi T, Siegmund B, Le Berre C, et al. Ulcerative colitis. *Nat Rev Dis Prim* 2020; 6:74.
- X. Madhavakara, Vijayarakshita and Srikantha Dutta, Madhava nidana with "vidyatini" Hindi commentary edited by Sundara Sastri 18th ed. Varanasi: Chaukhamba Sanskrit sansthana, 2006, P: 244
- XI. Goligher J. Dutie H. Nitin H. Surgery of Anus, Rectum and colon, Chapter Fistula in Ano, Published by Chaukhamba Orientalia Varanasi 2005, 5th Edition, Pg no. 521.
- XII. Lee MJ, Heywood N, Sagar PM, Brown SR, Fearnhead NS. Surgical management of fistulating perianal Crohn's disease: a UK survey. *Colorectal Dis.* 2017; 19:266-73.
- XIII. Topstad DR, Panaccione R, Heine JA, Johnson DR, MacLean AR, Buie WD. Combined seton placement, infliximab infusion, and maintenance immunosuppressives improve healing rate in fistulizing anorectal Crohn's disease: a single center experience. *Dis Colon Rectum.* 2003; 46:577-83.
- XIV. Soltani A, Kaiser AM. Endorectal advancement flap for cryptoglandular or Crohn's fistula-in-ano. *Dis Colon Rectum.* 2010; 53:486-95.
- XV. Sri Jagdishwar Prasad Tripathi commentaery on Chakrapani, Nadi vrana Chikitsa 11, Varanasi: Chowkhamba Sanskrit Series office; 2008.p.361
- XVI. Sharma SK, Sharma KR, Singh Kulwant. Kshara Sutra therapy in Fistula in ano and other anorectal disorders. New Delhi: Rashtriya Ayurveda Vidyapeeth; 1994- 1995.p.185.
- XVII. Srivastava PD SM. Efficacy of Kshar Sutra (medicated seton) therapy in the management of Fistula in Ano. *World J Color Surg.* 2010; 2(1):6.
- XVIII. NS Williams, CJK Bulstrode, and PR O'Connell, Bailey and Love's Short Practice of Surgery, Academic Medicine, 26th edition; P-1263
- XIX. Mishra D., Sharma A., Thakre N. and Narang R. management of anorectal diseases w.s.r. fistula-in-ano (bhagandara): a review based on ayurveda , *wjpmr*, 2017,3(8), 382-384
- XX. Shah B, Dudhamal TS, Prasad S. Efficacy of Kshara application in the management of internal haemorrhoids-A pilot study. *Journal of US China Medical Science* 2016; 13(3):169-173.
- XXI. Shashtri A. Sushruta Samhita of Sushruta Sutra Sthana; reprint. Ch.11 ver. 4, Varanasi: Chaukhamba Sanskrit Sansthan; 2014; p-45
- XXII. Mishra B.S. editor. Commentary Vidyotini on Bhavprakash Nighantu of Haritakyadi Varga; reprint. Ch. Haritakyadi Varga ver.196, Varanasi: Chaukhamba Sanskrit Bhawan; 2015; p-114