



EFFECTIVENESS OF *Nimba Tailam* (*Azadirachta indica*) *Gudapuran* IN THE MANAGEMENT OF FISSURE-IN-ANO: A SINGLE CASE STUDY

Dr. Nikesh Andhare¹, Dr. Rajshree Gavand², Dr. Preeti Yadav³

¹Final Year PG Scholer, Department of Dravyaguna, APM's Ayurved Mahavidhyalay Sion, Mumbai 22

²Professor & HOD Department of Dravyaguna, APM's Ayurved Mahavidhyalay Sion, Mumbai 22

³Assistant Professor Department of Dravyaguna, APM's Ayurved Mahavidhyalay Sion, Mumbai 22

ABSTRACT

Fissure-in-ano is a common anorectal condition characterized by severe pain and bleeding during defecation. Conventional treatments such as topical anesthetics, nitroglycerin ointment, and surgical interventions are effective but may be associated with recurrence, side effects, or complications. In recent years, natural remedies have gained interest as safer and cost-effective alternatives. *Nimba Tailam* (*Azadirachta indica*), known for its anti-inflammatory, antimicrobial, wound-healing, and analgesic properties, has been traditionally used in various skin and mucosal conditions. This single case study evaluates the effectiveness of topical application of *Nimba Tailam* in the management of a patient with Acute fissure-in-ano. Following regular application, the patient reported marked reduction in pain, bleeding, and discomfort, along with progressive healing of the fissure without any adverse effects. The findings suggest that *Nimba Tailam* may serve as a simple, affordable, and well-tolerated therapeutic option in fissure-in-ano management.

KEYWORDS: *Fissure-in-ano*, *Neem oil*, *Azadirachta indica*, *Ayurvedic treatment*, *Wound healing*, *Case study*.

1. INTRODUCTION

Fissure-in-ano is an anorectal disorder characterized by a longitudinal tear in the distal anal canal, most frequently located in the posterior midline. It is associated with severe pain during and after defecation, rectal bleeding, and a burning or pruritic sensation, which significantly impacts a patient's quality of life. The condition affects both men and women and is observed across all age groups, though it is more prevalent in young and middle-aged adults. The pathophysiology of fissure-in-ano is multifactorial, involving trauma to the anal mucosa due to the passage of hard stool, Acute constipation, diarrhea, and increased anal sphincter tone leading to local ischemia and impaired wound healing. Acute fissures may be associated with sentinel piles, hypertrophied anal papilla, and fibrosis at the base of the ulcer, making management more challenging.

Neem oil, extracted from the seeds of *Azadirachta indica*, is a traditional medicinal preparation widely used in Ayurveda and folk medicine. It contains bioactive compounds such as azadirachtin, nimbin, nimbidin, and salannin, which contribute to its therapeutic value. The following properties make *Nimba Tailam* especially relevant in the management of fissure-in-ano: Anti-inflammatory, Analgesic, Antimicrobial, Wound-healing, Moisturizing and Emollient, Antioxidant, Astringent.

In fissure-in-ano management, these properties help in reducing pain, preventing infection, softening the anal mucosa, and promoting faster healing-making *Nimba tailam* a safe and cost-effective therapeutic alternative.

CASE HISTORY

A 26-year male patient had complaints of constipation associated with pain and burning sensation in the perianal region during and after defecation for 5 days. Pain was mild to moderate first 3 days which was subside after 20 minutes of defecation. But after 3 days, pain became aggravated daily and the symptoms like pain and burning sensation and cutting pain was persisting up to 45 minutes after defecation. The patient also had associated complaints like constipation and the presence of blood streak while passing of stool. Patient has no history of any systemic disease such as DM, HTN, Thyroid disorder or any other major illness. Patient had no history of any past surgeries

Systemic Examination

BP - 110/70 mmhg	Temperature- Afebrile
Pulse - 70/min	Tongue – Sama
Stools- H/O Acute Constipation	
Urine- Adequate 5-6 times/day	

Local Examination

A linear tear at the 6 o'clock position was observed with mild perianal inflammation.

2. MATERIALS AND METHODS

Treatment Plan

A single case study was conducted in the *Shalya Tantra* OPD of Apms Ayurved Mahavidyalaya and Seth R.V. Ayurvedic rugnalaya, Sion, Mumbai. The selected patient was treated with *Triphaladi Churnam* orally for constipation *And Nimba Tailam Gudapuran (20ml)* after sitz bath with lukewarm water and



Nimba Tailam Picchu was Kept Twice a day for 5 day's in the fissure as external treatment. Single clinical case study was conducted after obtaining voluntary informed consent.

Assessment Criteria

1) Pain during defecation (VAS Scale 0–10)

	VAS Scale Grading
Day 0	8
Day 3	5
Day 5	2

2) Bleeding

	Bleeding
Day 0	Present
Day 3	Present(mild)
Day 5	Absent

3) Burning sensation

	Burning Sensation
Day 0	Present
Day 3	Moderately Present
Day 5	Absent

4) Healing of fissure (clinical inspection)

	Clinical Examination
Day 0	Wound Present
Day 3	Healing wound
Day 5	Healing wound

3. RESULTS

The patient experienced considerable symptom relief by Day 5 and No recurrence was noted during a 1-month follow-up.

4. DISCUSSION

The therapeutic action of *Nimba Tailam*(*Azadirachta indica*) in fissure-in-ano can be explained through its multiple pharmacological properties, which work synergistically to reduce symptoms and promote healing. Reduction of Inflammation, Bioactive compounds such as nimbidin and azadirachtin inhibit the release of inflammatory mediators, reducing local swelling, redness, and irritation around the fissure site. Relief from Pain and Burning Sensation: *Nimba Tailam* exerts mild analgesic and soothing effects on the affected mucosa, thereby reducing the acute pain experienced during and after defecation. The fissure creates a raw wound that is prone to bacterial contamination. Neem oil's strong antimicrobial action (against bacteria, fungi, and viruses) prevents secondary infection, which otherwise delays healing. *Nimba Tailam* promotes collagen synthesis and granulation tissue formation, aiding in faster repair of the damaged anal mucosa. As an emollient, *Nimba Tailam* keeps the anal mucosa moist and reduces friction during stool passage, preventing further tearing and irritation. By reducing sphincter spasm (secondary to pain and irritation), *Nimba Tailam* indirectly improves blood flow in the anal region, correcting the ischemia that often delays fissure healing. Free radicals at the wound site are neutralized by neem oil's

antioxidant compounds, which protect tissues and enhance regeneration. *Nimba Tailam* had no side effects in this case, was cost-effective, and well accepted by the patient.

5. CONCLUSION

Nimba Tailam(*Azadirachta indica*) demonstrated promising results in the healing of acute fissure-in-ano in this single case study. It can be considered as an effective alternative or complementary topical remedy, particularly in early-stage or uncomplicated cases. However, larger clinical trials are needed to validate these findings.

6. REFERENCES

1. Nadkarni KM. *Indian Materia Medica*. Bombay: Popular Prakashan; 2000.
2. Chatterjee A, Pakrashi SC. *The Treatise on Indian Medicinal Plants*. Vol 3. NISCAIR; 1995.
3. Dwivedi V, Tripathi S. Role of *Neem* (*Azadirachta indica*) in management of health: A review. *Journal of Biological and Chemical Research*. 2013;30(1):105-113.
4. Sharma PV. *Dravyaguna Vigyan*. Chaukhambha Bharati Academy, Varanasi.
5. Gupta PJ. A comparative study between chemical sphincterotomy and topical application of glyceryl trinitrate in the treatment of Acute anal fissure. *The Surgeon*. 2004;2(5):291-294.