

STUDY ON THE EFFECTIVENESS OF LATERAL ANAL SPHINCTEROTOMY AS AN OUTPATIENT PROCEDURE USING DIATHERMY UNDER LOCAL ANAESTHESIA FOR CHRONIC ANAL FISSURE

F. Grey Bernard¹, R.Vishnu¹, Sumathi Ravikumar¹

¹Department of General Surgery, Thanjavur Medical College, Tamil Nadu, India

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Corresponding Author:

Dr. F. Grey Bernard,

Email: serfojinathan001@gmail.com

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ABSTRACT

Background: Chronic anal fissure remains one of the most common benign anorectal disorders, second only to hemorrhoids. Its prevalence has increased in recent years, primarily due to sedentary lifestyles and irregular dietary habits. While acute fissures typically respond to conservative therapy, chronic fissures often necessitate surgical intervention. Lateral internal sphincterotomy (LIS) remains the gold standard treatment. This study evaluates the feasibility, safety, and efficacy of performing LIS using monopolar diathermy under local anaesthesia as an outpatient (day-care) procedure. **Materials and Methods:** A prospective observational study was conducted in the Department of General Surgery, Thanjavur Medical College, between April 2021 and April 2022. Forty patients diagnosed with chronic fissure-in-ano were included. All underwent LIS using monopolar diathermy under local anaesthesia. Postoperative monitoring was performed for one hour, and patients were discharged on the same day with instructions for conservative care. Follow-up was conducted weekly for one month and monthly up to three months. **Result:** Among 40 patients (26 males and 14 females), the majority were between 40–50 years of age. Postoperative complications included pain in 12 patients (30%), infection in 7 (17.5%), and hematoma in 2 (5%). No cases of bleeding, incontinence, or recurrence were observed during the three-month follow-up period. All complications were managed conservatively without requiring hospital readmission. **Conclusion:** Lateral internal sphincterotomy performed using monopolar diathermy under local anaesthesia is a safe, effective, and economically viable outpatient procedure for chronic anal fissure. It minimizes hospital stay, avoids anaesthesia-related risks, and ensures high patient satisfaction. The procedure yields outcomes comparable to those performed under regional anaesthesia. Larger multicentric trials are recommended to validate these findings.

INTRODUCTION

Anal fissure is one of the most frequently encountered benign anorectal disorders in clinical practice. It is characterized by a longitudinal ulcer located in the distal anal canal, typically in the posterior midline. Chronic fissures are associated with hypertonicity of the internal anal sphincter, leading to local ischemia and impaired wound healing. Conservative management—comprising dietary modification, topical vasodilators, and Sitz baths—remains effective in acute cases. However, chronic fissures often necessitate surgical management to achieve durable symptom relief and mucosal healing.^[1-3]

Lateral internal sphincterotomy (LIS) has been established as the gold standard surgical treatment. It effectively reduces resting anal sphincter pressure,

relieves pain, and facilitates anodermal healing. Traditionally, LIS has been performed under regional or general anaesthesia. Recent advances have made it feasible under local anaesthesia in an outpatient setting, significantly reducing hospitalization costs and anaesthetic risk. This study aims to evaluate the safety, feasibility, and outcome of LIS performed using diathermy under local anaesthesia as a day-care procedure.^[4-6]

MATERIALS AND METHODS

A prospective observational study was conducted in the Department of General Surgery, Thanjavur Medical College Hospital, Tamil Nadu, from April 2021 to April 2022. A total of forty patients with clinically diagnosed chronic fissure-in-ano were included in the study.

Inclusion Criteria

Patients aged 20–65 years with chronic fissure-in-ano willing to undergo outpatient LIS under local anaesthesia.

Exclusion Criteria

Patients with coexisting anorectal pathology (fistula, abscess, hemorrhoids), significant systemic comorbidities (CAD, CKD, DCLD), or those unwilling to consent.

All patients underwent detailed clinical examination and proctoscopy. Routine investigations included hemoglobin estimation, blood sugar, coagulation profile, viral serology, and blood grouping. Written informed consent was obtained prior to the procedure.

Under aseptic precautions, 2% lignocaine was infiltrated into the perianal region on the left side. A vertical incision was made, and the internal anal sphincter was identified and divided using monopolar diathermy, guided by the index finger. Hemostasis was achieved, and a sterile dressing applied. Patients were observed for one hour post-procedure and discharged with antibiotics, analgesics, stool softeners, and Sitz bath instructions. Follow-up visits were scheduled at one week, one month, and three months.

RESULTS

Of the forty patients included, 26 were male (65%) and 14 were female (35%). The majority (42.5%) belonged to the 40–50-year age group. Most patients (70%) had previously tried native or alternative treatments, and 75% had used over-the-counter medications prior to presentation.

Comorbidities included Type 2 Diabetes Mellitus (4 patients), Systemic Hypertension (3 patients), and Bronchial Asthma (1 patient).

Postoperative complications were limited to minor events, as summarized below:

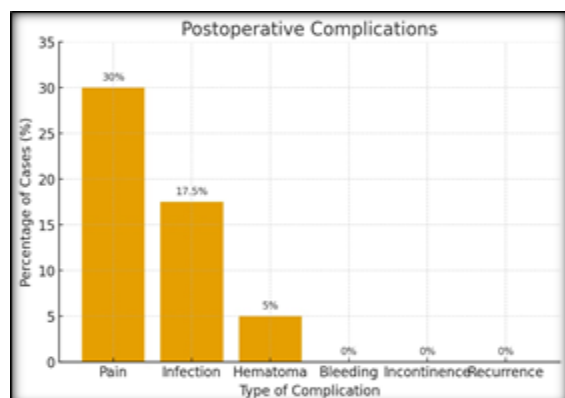


Figure 1

All complications were conservatively managed in the outpatient department.

DISCUSSION

Lateral internal sphincterotomy continues to be the most definitive surgical intervention for chronic anal fissure. The primary mechanism of symptom relief and healing lies in reducing the resting anal sphincter pressure, which restores anodermal blood flow and promotes tissue repair.

The present study demonstrates that performing LIS under local anaesthesia using diathermy is both safe and effective. The absence of major complications such as bleeding, incontinence, or recurrence reinforces the reliability of this technique. The minor postoperative complications observed were easily managed without hospital readmission.

Comparable outcomes have been reported in previous literature. Abcarian (1980) demonstrated the superiority of LIS over fissurectomy. Arroyo et al. (2005) established that local anaesthesia offers outcomes equivalent to regional anaesthesia while reducing perioperative morbidity. Performing the procedure in an outpatient setting enhances patient convenience, decreases healthcare costs, and optimizes hospital resource utilization.

CONCLUSION

Lateral internal sphincterotomy using monopolar diathermy under local anaesthesia represents a safe, cost-effective, and patient-friendly outpatient procedure for chronic anal fissure. It yields outcomes comparable to conventional methods performed under regional anaesthesia, with minimal morbidity and high patient satisfaction. This study supports the adoption of this technique as a viable day-care surgical option. Further large-scale randomized controlled trials are recommended to substantiate these findings.

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