



**ORIGINAL RESEARCH PAPER**

**Surgery**

**STUDY ON EFFECTIVENESS OF LATERAL ANAL SPHINCTEROTOMY AS AN OUT PATIENT PROCEDURE USING DIATHERMY UNDER LOCAL ANAESTHESIA FOR CHRONIC ANAL FISSURE**

**KEY WORDS:** FISSURE IN ANO, LOCAL ANAESTHESIA, SPHINCTEROTOMY, DIATHERMY, OUTPATIENT, HEMATOMA, DISCHARGE

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**ABSTRACT**

Anal fissure is one of the most common surgical disorders of the anal canal, ranking next to hemorrhoids and chronic constipation. The incidence of anal fissure has been increasing since the last two decades due to irregular foot habits as well as improper modern lifestyle habits. The prevalence of anal fissure in general population is probably much more higher than that is seen in clinical practice. This is because, most of the patients do not seek medical attention or resort to some form of native treatment. In early stages, it can be managed by increasing intake of dietary fibres, stool softeners and Sitz baths. But chronic fissure in ano needs surgical treatment, as the underlying pathology is increased internal anal sphincter tone. Lateral anal sphincterotomy is the procedure of choice, which is usually performed under regional anaesthesia. This procedure can also be performed under local anaesthesia as a day care procedure with similar results. This study aims to determine the feasibility and efficacy of lateral anal sphincterotomy for chronic anal fissure under local anaesthesia using diathermy as an outpatient procedure.

**AIMS AND OBJECTIVES**

- To study about OPD management of Chronic fissure in ano as Day care surgery
- To study about effectiveness of Lateral anal sphincterotomy as an OPD procedure
- To study about the advantages and disadvantages and post-operative complications of Lateral anal sphincterotomy using diathermy under local anaesthesia.

**JUSTIFICATION OF THE STUDY**

Fissure in ano is one of the most common anal pathologies seen in surgical OPD. Lateral anal sphincterotomy remains the gold standard procedure of choice for its management.

This study will analyse about the benefits and dis-advantages of Sphincterotomy done as an OPD procedure using diathermy under local anaesthesia.

**MATERIALS AND METHODS**

This was a prospective study which was conducted in the DEPARTMENT OF GENERAL SURGERY, THANJAVUR MEDICAL COLLEGE. The Study was conducted during the period of APRIL 2021- APRIL 2022, in this period totally 40 patients were studied.

**INCLUSION CRITERIA**

- All patients presenting in Surgical OPD, TMCH with diagnosis of Chronic Fissure in ano
- Age 20 – 65 years

**EXCLUSION CRITERIA**

- Patients not desirous of participating in the study
- Patients with additional anal pathologies
- Patients with gross co-morbidities such as CAD, CKD, DCLD.

**SAMPLE SIZE : 40**

**METHODS**

Patients coming to OPD with symptoms of Pain during defecation, Constipation, Blood in stools were examined using Proctoscope. The patients with diagnosis of chronic anal fissure were selected and were advised surgery. Basic blood investigations were taken. Inj. TT and Local anaesthetic test dose were given. Patients were prepared and were shifted to Operation Theatre.

All the patients underwent Lateral Internal Anal Sphincterotomy under Local Anaesthesia. All the patients

were discharged on the same day after a period of observation. They were given oral antibiotics, analgesics, stool softeners. They were advised to do Sitz bath. All the patients were reviewed in OPD at 1 week till 3 months post op. Results were obtained and formulated.

**LABORATORY INVESTIGATIONS**

- Hemoglobin
- Blood Sugar
- Blood Grouping and Typing
- Bleeding and Clotting Time
- Viral Markers

**CONSENT**

The selected patients were explained about the disease and the procedure and possible complications in their native language and informed written consent was obtained before the procedure.

**PROCEDURE**

Under sterile aseptic precautions, parts are prepared and draped. Local anaesthetic agent Inj. Lignocaine 2 % was infiltrated in perianal skin on left side. A vertical skin incision was made over the anaesthetized area. Incision deepened. The internal anal sphincter fibres are then hooked out using artery forceps, using left index finger intra anally as guide. The hooked sphincter fibres are cut using Monopolar cautery. Hemostasis checked and wound packed. Sterile Dressing applied.

**POST OP PERIOD AND DISCHARGE ADVISE**

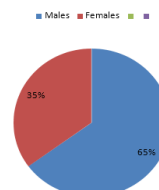
All the patients were observed for a period of 1 hour post op and were discharged. All the patients were educated about the complications of the procedure such as bleeding. They were discharged with Oral Antibiotics, Analgesics, Stool Softeners and SITZ bath. All the patients were asked to come after one week to Surgery OPD for follow up.

**DATA AND ANALYSIS**

Total No. Of Patients studied: 40

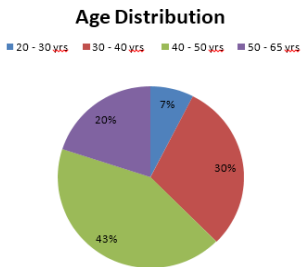
- Males : 26
- Females : 14

**Gender Distribution**



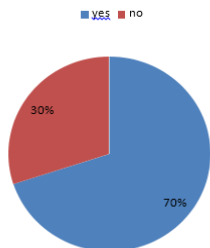
**AGE DISTRIBUTION**

- 20–30 yrs : 3
- 30–40 yrs : 12
- 40–50 yrs : 17
- 50–65 yrs : 8



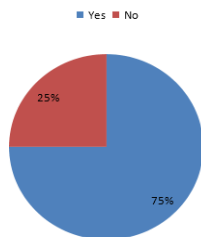
No. of patients took Native treatment: 28/40 : 70 %

**Native treatment**



Patients who took over the counter medications: 30 / 40 : 75 %

**OTC medication**

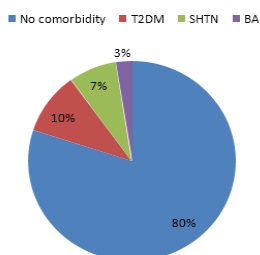


**CO-MORBIDITIES**

Most common Co-morbidities associated with our patients :

- Type 2 Diabetes Mellitus : 4
- Systemic Hypertension : 3
- Bronchial Asthma : 1
- No-comorbidities : 32

**COMORBIDITIES ASSOCIATED**



**PARAMETERS ANALYSED**

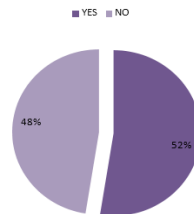
- Pain
- Bleeding
- Infection
- Hematoma
- Incontinence
- Recurrence

All patients were followed up in Surgery OPD for a period of 3 months and results were tabulated.

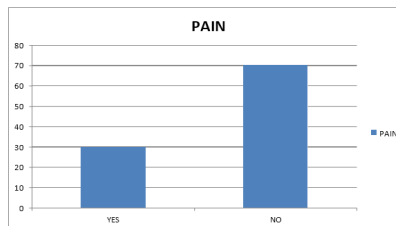
S.No	PARAMETERS	INCIDENCE
1	Pain	12 { 30% }
2	Bleeding	Nil
3	Hematoma	2 { 5 % }
4	Infection	7 { 17.5 % }
5	Incontinence	Nil
6	Recurrence	Nil

**COMPLICATIONS – PREVALENCE**

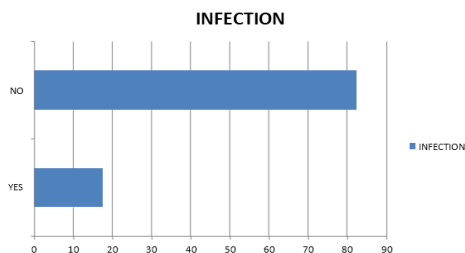
**Complications**



**INCIDENCE OF PAIN :**

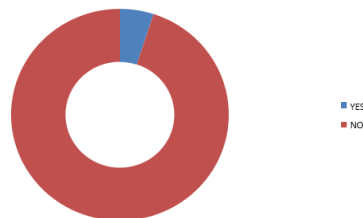


**INCIDENCE OF INFECTION**



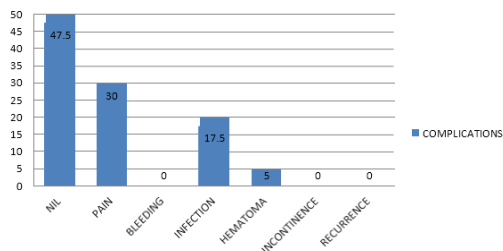
**INCIDENCE OF HEMATOMA**

**HEMATOMA**



**OVERALL COMPLICATIONS**

**COMPLICATIONS**



**RESULTS**

- Totally 40 patients were studied and all of them were followed up for 3 months. All the patients underwent Lateral Internal Anal Sphincterotomy under Local Anaesthesia.
- Out of them, 26 were males and 14 were females.

- Most commonly involved age group was 40 to 50 years, followed by 30 to 40 years.
- 28 patients previously took some form of native treatment.
- 30 patients took Over The Counter drugs.
- 4 of them had Type 2 Diabetes Mellitus, 3 had Systemic Hypertension and 1 had Bronchial Asthma.

### DISCUSSION

Out of the 40 patients, 12 patients had persistent post operative pain. All of them were conservatively managed with Oral Analgesics. None of them had primary / reactionary hemorrhage. 7 patients had some form of infections which were treated with oral anti biotics. Two patients had Hematoma formation requiring drainage under local anaesthesia as out patient procedure. None of them had recurrence and incontinence in the 3 month follow up period. None of the patients required hospitalization.

### CONCLUSION

This is a small scale study conducted in a tertiary care institution. On reviewing the literature, it is found that, Lateral Anal Sphincterotomy is the preferred treatment of choice for Fissure in Ano. The efficacy of Sphincterotomy under Local Anaesthesia is as comparable with that under Regional Anaesthesia. It is a simple and feasible procedure eliminating the risks associated with regional anaesthesia. The complications profile is the same with both circumstances. Further large scale studies are essential to firmly establish our inference.

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