

ORIGINAL RESEARCH

The outcome of surgical management of anal fistulae by LIFT (ligation of intersphincteric fistulous tract)

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ABSTRACT

Fistula-in-ano is a benign treatable lesion of the rectum and the anal canal. Crypto glandular infection accounts for about 90% of the cases. The majority of the infection is acute and a minority contributed by chronic low-grade infection hence pointing to varying causes. Patients satisfying inclusion and exclusion criteria are selected into the study after obtaining informed and written consent. Demographic data like age, sex, name, occupation are noted, clinical symptoms of presentation with duration, associated complaints, past medical and surgical history, personal and family history was noted. Examination findings on DRE, proctoscopy, and investigations like total counts, X-ray fistulography findings was noted. In this study duration of hospital stay was studied which ranged from 4-7 days and average number of days of hospital stay was 5.5 days

Key words: Anal Fistulae, LIFT, Surgical Management

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Introduction

Fistula-in-ano or anal fistula is a chronic abnormal communication, usually lined by granulation tissue, which runs outwards from the anorectal lumen to an external opening on the skin of perineum or buttock.

Fistula in ano has been a common surgical ailment reported since the time of Hippocrates, but little systematic evidence exists on its management.¹

Fistula-in-ano is a benign treatable lesion of the rectum and the anal canal. Crypto glandular infection accounts for about 90% of the cases. The majority of the infection is acute and a minority contributed by chronic low-grade infection hence pointing to varying causes.

The pathogenesis has been attributed to the bursting open of an acute or inadequately treated anorectal abscess into the perianal skin. An infection developed in an anal gland lying within the submucosa of the anal canal is the direct cause of most of the fistula in ano.²

Anal fistulae may be found in associated with several conditions such as Crohn's disease, tuberculosis, lymphogranuloma venereum, actinomycosis, rectal duplication, foreign body, and malignancies. The estimated prevalence of the anal fistula is 12 to

28/1,000,000 of the population per year with male to female ratio of 1.8:1³

It is a distressing condition for patients and can be surgically challenging.⁴ There are various classifications of fistula in ano, but the simplest and the most widely used one is Park's classification.

In 1976, Sir Alan Parks classified fistula in ano, depending on the relationship of the tract to the anal sphincter muscle.⁵ The surgical treatment of anal fistulas has been a challenge for both surgeons and patients. There are various surgical procedures for the management of anal fistula with a variable risk of incontinence and recurrence.

Various surgical procedures include fistulotomy, seton placement, endorectal advancement flap, ano cutaneous advancement flap, excision and closure of the internal opening, insertion of fibrin or cyanoacrylate glue, insertion of fistula plug, video-assisted anal fistula treatment (VAFT) and ligation of the inter sphincteric fistula tract (LIFT).⁶

Out of these techniques, the Ligation of Inter Sphincteric Fistula Tract (LIFT) is the most promising surgical technique which is based on secure closure of the internal opening and removal of the infected crypto glandular tissue through inter

sphincteric approach. This procedure is simple, safe, and minimally invasive. It is also effective with a high and rapid healing rate without any resultant incontinence. It is now widely adopted because of satisfactory early results.

Methodology

This was a prospective, single centred, and an interventional study was done in patients with fistula-in-ano admitted to general surgical wards Hospital.

Source of patients: Those patients with fistula in intervals admitted to general surgical wards of Hospital are taken up for study.

Study sample: 30 cases with fistula-in-ano.

Inclusion criteria

All patients admitted to the Surgical wards with the confirmed diagnosis of the fistula in ano and are willing for the surgical management of the same.

Exclusion criteria

Children below the age of 18 years, those with recurrent fistulae and fistulae secondary to chronic diseases, tuberculosis, malignancy, etc., those who are not eligible to give informed consent and subcutaneous fistulae, which can be excised safely without injury to sphincters.

The plan of study was submitted to the hospital ethics committee, and their approval has been obtained.

Method of data collection

Patients satisfying inclusion and exclusion criteria are selected into the study after obtaining informed and written consent.

Demographic data like age, sex, name, occupation are noted, clinical symptoms of presentation with duration, associated complaints, past medical and surgical history, personal and family history was noted.

Examination findings on DRE, proctoscopy, and investigations like total counts, X-ray fistulography findings was noted.

During the operation, a record was kept regarding the time required for the surgery. Postoperatively patients were asked to answer the questionnaire.

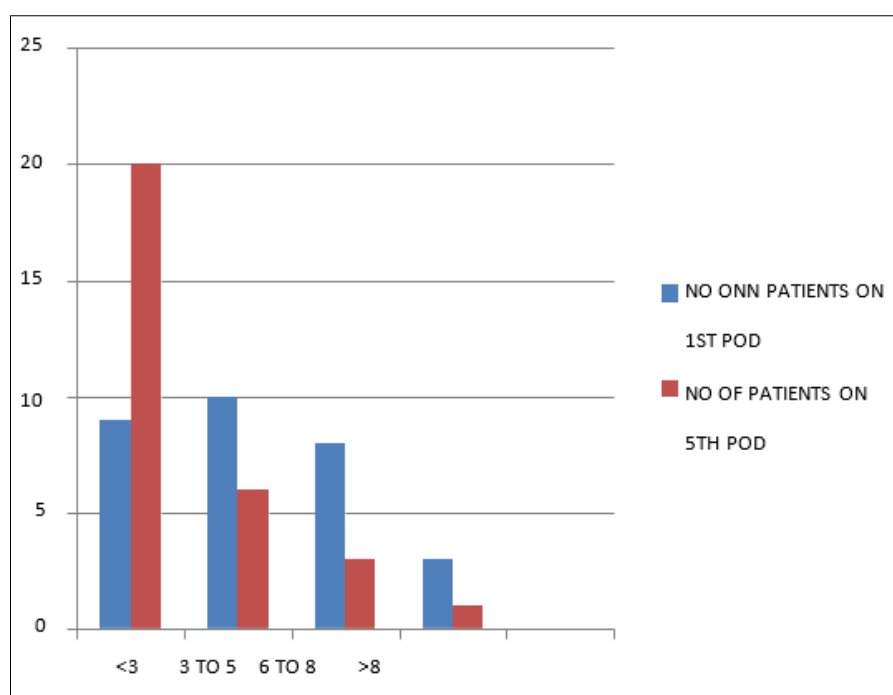
Post-operative pain was assessed using a visual analogue scale, which is represented by a straight line measuring 10cms, the extremes of which corresponds to no pain at one end and worst at the other end.

Patients were assessed on 1st and 5th post-operative day, in the morning. The number of days to return normal activity is observed. Follow up of patients was done at 1, 3, and 6 months and patients were asked to fill the questionnaire in each follow-up.

Procedure

In each case, surgery was performed under spinal anaesthesia in the lithotomy position. The fistula tract and internal opening were identified by injecting a dye. The skin was cut circumferentially in the intersphincteric groove, over the fistula tract. The intersphincteric space was dissected, and the fistula tract isolated. The fistula tract was ligated in the intersphincteric space (near the internal sphincter) and cut. The wound in the intersphincteric groove was sutured using interrupted absorbable sutures.

Results:

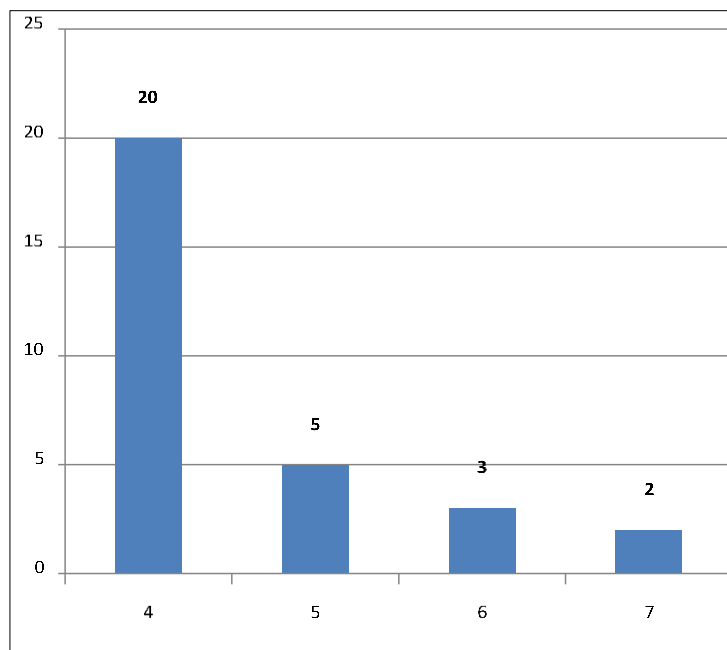


Graph 1: Postoperative pain assessment

In the present study on postoperative day 1, 10 had VAS of 3-5, 8 had 6-8, only 3 had > 8 scores on VAS. On a postoperative day 5, 20 cases had a score <3.

Table 1: Time to return to pre-operative physical activity (n=30)

Number of days	Number of patients
4	20(66.7%)
5	5(16.7%)
6	3(10%)
7	2(6.6%)



Graph 2: Time to return to pre-operative physical activity

In the present study average, no of days to return to physical activity was 5.5 days

Incidence of recurrence

There were no recurrences during the follow-up period of 6 months.

Discussion

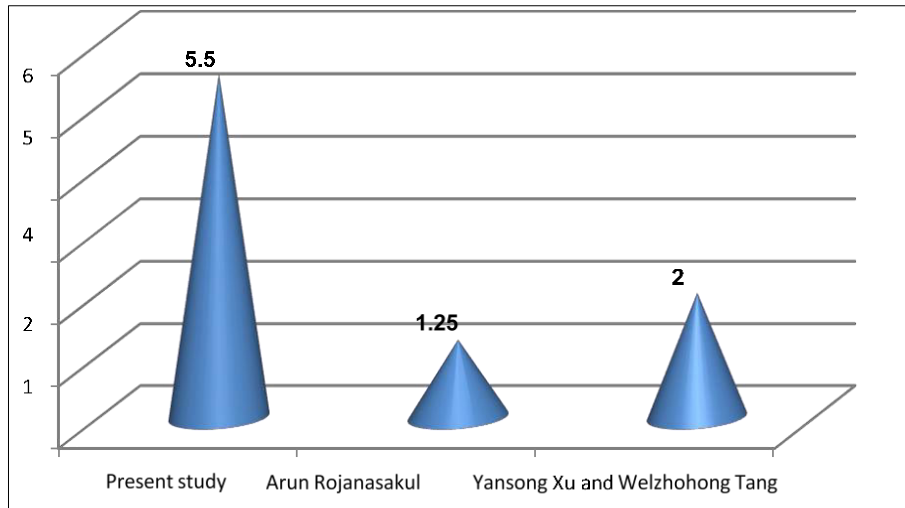
Duration of hospital stay

In this study duration of hospital stay was studied which ranged from 4-7 days and average number of days of hospital stay was 5.5days

In the study by Yansong Xu and Welzhohong Tang, the postoperative hospital stay ranged from 1-4 days with a mean of 2 days

Table 2: Duration of hospital stay in various studies

Study	Duration of hospital stay
Present study	5.5
Arun Rojanasakul ⁷	1.25
Yansong Xu And Welzhohong Tang ⁸	2



Graph 3: Duration of hospital stay in various studies

In the study by ArunRojanasakul *et al.* mean length of stay was 1.25 days, ranging from 0.5-5days. All the studies suggested a short duration of hospital stay.

Recurrence

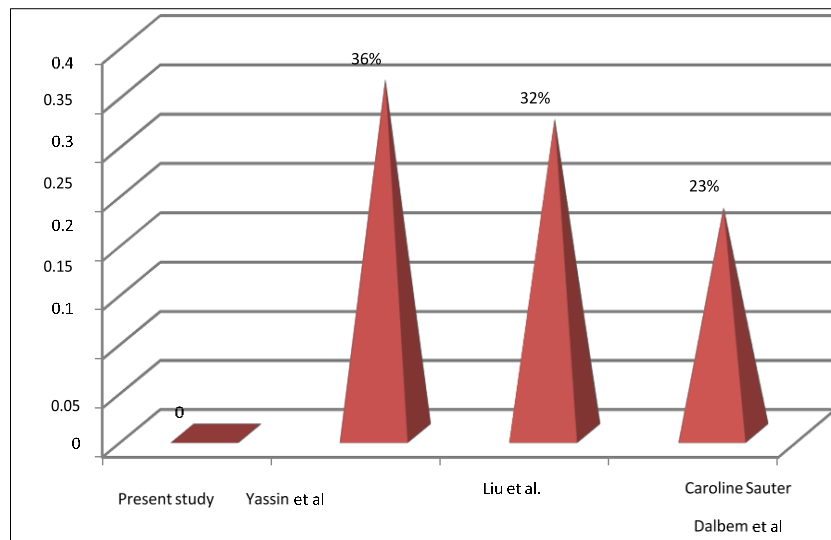
The mean follow-up in this series was six months, and the relapse rate was 0%. In studies of Yassin *et al.* and Liu *et al.*, the mean follow-up was 19 and 28 months,

respectively, and the recurrence rate was 36% and 32%, respectively.

In the study by Caroline SauterDalbemet *et al.* the mean follow up was for 14, and the recurrence rate was 23%.¹² Possibly the lower relapse seen in this paper is inferior to the other studies presented here due to a shorter follow-up.

Table 3: Comparison of recurrence

Study	Recurrence
Present study	0
Yassin <i>et al.</i> ⁹	36%
Liu <i>et al.</i> ¹⁰	32%
Caroline SauterDalbemet <i>et al.</i> ¹¹	23%



Graph 4: Comparison of recurrence

Conclusion

General surgeons perform surgeries for Fistula in ano day in and day out as elective procedures. Fistula in ano is more common nowadays because of improper hygiene.

Three major basic aims of Fistula in ano surgeries are

- Control of sepsis
- Closure of fistula
- Maintenance of continence.

The main role in the management of fistula is to prevent damage to the sphincter mechanism that can lead to devastating complications like incontinence.

Surgeries like Fistulotomy and Fistulectomy may cause damage to the sphincter if the tract is passing through the sphincter.

To prevent this surgery like Anal fistula plug, Anal advancement flap, Seton usage, and LIFT (Ligation of Intersphincteric Fistula Tract), VAAFT were evolved in the management of complex and inter or transsphincteric fistulas.

LIFT is a better surgical option in terms of post-operative pain, duration of hospital stay, short-term recurrence when compared to other procedures.

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