

Comparison of Lift vs Seton Implantation for Fistula in Ano-Less is More?

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Abstract: *Fistula-in-ano (FIA) is a persistent form of ano-rectal sepsis characterized by recurrent episodes of discomfort and purulent discharge. The management of FIA is challenging due to its complex and persistent nature. This study aims to evaluate and compare the results of the Ligation of the Intersphincteric Fistula Tract (LIFT) method and the implantation of the Seton wire in difficult FIA cases.*

Keywords: Fistula-in-ano (FIA), Ano-rectal sepsis, Ligation of the Intersphincteric Fistula Tract (LIFT), Seton wire implantation, Surgical management, Anal fistula treatment

1. Introduction

Fistula-in-ano, also known as FIA, is a persistent form of ano-rectal sepsis that is characterised by recurrent episodes of discomfort and persistent purulent discharge. The process often begins with there-accumulation of an abscess, followed by repeated episodes of intermittent and spontaneous decompression. [1,2] Due to the persistent sepsis within the fistula tract, which is constantly being introduced through its internal opening, this condition does not resolve spontaneously. [3-5] The administration of fistula is tough due to the complexity of the underlying disease and the likelihood of recurrence. In many situations, it is not satisfying, as it is sometimes remarked that the credentials of great surgeons are more commonly lost in the care of FIA compared to any other type of surgery. [6]

The major objectives of managing FIA are to promote fistula healing, prevent or reduce fistula recurrence, and ensure the patient maintains continence. Given the intricate and persistent nature of the ailment, along with the rate of healing, incontinence, and likelihood of the condition returning after each surgery, it is not possible to use a single approach for all cases of FIA.

Despite the numerous breakthroughs and developments in the senior leadership of FIA, this remains the situation.8. A seton can be placed independently or in combination with a fistulotomy, or in a sequential fashion. Managing intricate or numerous fistulas, as well as recurrent fistulas after a prior fistulotomy, is advantageous.

Individuals afflicted with Crohn's disease, immunosuppressed patients, female patients with anterior fistulas, patients with low preoperative sphincter pressures, and individuals with these medical problems. During subsequent office visits, the seton is gradually tightened until it is completely pulled through, a process that usually lasts for a period of six to eight weeks. [7,8]

The Ligation of the Intersphincteric Fistula Tract (LIFT) is a therapeutic procedure that can preserve the sphincter muscle

in challenging situations of transsphincteric fistulas. A meticulous analysis conducted along the intersphincteric plane is employed to precisely identify and separate the fistula tract. Once the intersphincteric tract is located, it is tied off near the internal sphincter and then divided below the point where the tying was done.

Therapeutic intervention is applied to both the external opening and the remaining fistulous tract, which have been curetted to the level of the external sphincter complex.

Finally, an absorbable suture is employed to gently bring together the intersphincteric incision. [7]

However, the management of high and complex FIA continues to be a difficult surgical undertaking, and innovative techniques that preserve the sphincter can be considered for the same objective. Basic fistulas can be managed using any of the previously mentioned methods. The current investigation was carried out with the purpose of evaluating and contrasting the results of the LIFT method and the implantation of the Seton wire in difficult FIA.

2. Material and Methods

This was a Prospective comparative study conducted using the period from March 2022 to July 2023, the study was conducted in the department of surgery and radiodiagnosis after approval from IEC.

All the patients that presented to surgery OPD and were diagnosed with intersphincteric perianal fistula were enrolled.

All patients with ages between 18-50 years, with BMI – 18-30 kg /m² and willing for either procedure were included in the study. All the patients age > 60 years, with BMI > 35 kg/m², have undergone prior perianal procedures, Inflammatory bowel disease like Crohn's disease and tuberculosis, with history of fecal incontinence, with Extrasphincteric fistula (Park's classification) or Sub-mucosal fistula (Park's classification) were excluded.

The patients were randomly divided into two groups.
 Group-I: patients who underwent the inter sphincteric ligation of perianal fistula (LIFT) operation.
 Group-II: patients who underwent the seton procedure.

The patients were recruited after written informed consent after receiving comprehensive information regarding the procedure and its conditions. Demographic details, history, and physical findings were recorded in a semi-structured pro forma.

The statistical analysis was performed using SPSS v25 (IBM corp). For categorical variables, frequency and proportions were used, while continuous variables were assessed by mean and standard deviation.

Comparisons were performed using Student’s t-test, Chi square test and Pearson’s correlation. A p value <0.05 was considered significant.

3. Results

When we compared the age wise distribution in the study population, we observed that there was no difference statistically (p-value=0.6198). The mean age of Group I was 36.53 +/- 13.00 years, while in Group II it was 33.77 +/- 10.05 years.

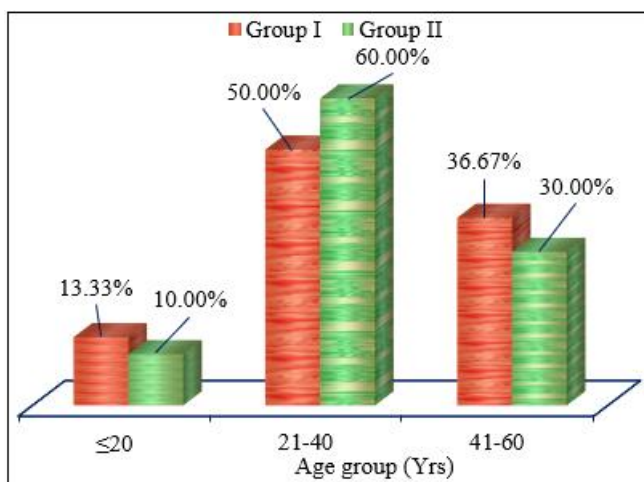


Figure 1: Age wise distribution

Similarly, the male to female distribution was similar in both groups (p value 1)

Table 1: BMI

BMI	Group I		Group II	
	No.	%	No.	%
<18.5	5	16.67	6	20.00
18.5-24.9	18	60.00	19	63.33
25.0-29.9	6	20.00	5	16.67
≥30.0	1	3.33	0	0.00
Total	30	100.00	30	100.00

Chi-square value=1.208
 p-value=0.7508

Table-2: Mean BMI

	No.	Mean	SD	t-value	p-value
Group I	30	22.60	3.83	-0.889	0.3776
Group II	30	21.75	3.57		

Mean BMI was comparable between both the groups.

There was no observable difference between the pain scores post-operatively between the procedures on POD-0 (p-value=0.295)

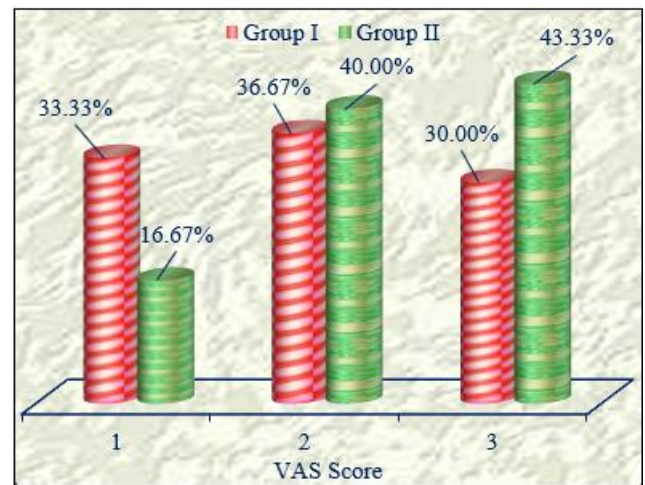


Figure 2: VAS Score (POD-0)

Table 3: Limitation of activities during last 4 wks

	Group I		Group II	
	No.	%	No.	%
Mild (Mean -SD)	2	6.67	1	3.33
Moderate (Mean ±SD)	25	83.33	25	83.33
Severe (Mean+ SD)	3	10.00	4	13.33
Total	30	100.00	30	100.00

Chi-square value=0.476
 p-value=0.788

4. Discussion

In our study, there were a total of SIXTY patients, with a ratio of 52 males to 8 females, which is close to the ratios seen in earlier studies [9-13]. This demonstrates that FIA is more prevalent in males than it is in females. Kumar et al noted that majority of the study participants in both their groups were females. Seton placement was done only in females in their study.

Our study found that patients between the ages of 20–60-year-old were more likely to be impacted. In a study conducted by Kumar et al., the age of the patients varied between 19 and 65 years. The mean age of patients who underwent the LIFT surgery was 40.1, while for those who had fistulectomy with seton wire implantation, it was 43.6. Their study could not find any statistically significant difference. [13]

In our research, majority of patients in both groups were able to accomplish full healing without experiencing any recurrence at the six-month mark, without any alteration in physical, social and emotional health scores. This finding is equivalent to the findings of Chen et al. [12] research.

According to Shanwani et al. [14], primary healing occurred in 82.2% of the patients, and the median amount of time it took for patients to recover was seven weeks. After the LIFT surgery, they proposed that the creation of perianal sinuses in the epithelialised external tract remnant may be avoided by

performing a coring technique on the external fistula tract. In other investigations on the original LIFT operation, 13 claimed to have obtained comparable findings.

Pain and hospital stay was significantly higher in LIFT group in our study, with a 100% healing rate in both groups. In Gupta et al, Patients who underwent the LIFT surgery reported a pain score of 2.6 at 1 week and 0.5 at 1 month. In contrast, patients who underwent fistulectomy with seton wire implantation reported a pain score of 3.9 at 1 week and 1.0 at 1 month.

At the 3-month follow-up, none of the patients in either group experienced any pain, which aligns with the results of the current study. According to the findings of Munir Akhtar and colleagues, the use of a cutting seton for the treatment of high FIA is linked with a low risk of complications and can be suggested as the standard therapy for high FIA.[15]

In our study, no recurrences were noted during follow-up. Only five patients, or twenty percent, in group A presented with a recurrence in a study by Chen et al[12] This finding is comparable to the study that was carried out by Liu KY et al., in which the recurrence rate following modified LIFT was 20%, which is equivalent to the findings of previous studies. A recurrence was seen in four (16%) of the individuals who were in group B in Chen et al. [12]

Our research revealed that group A/B did not have any instances of incontinence. In addition, Chen et al. and Kang WH et al. [12] stated that the patients in their research did not exhibit any signs of faecal incontinence following the same particular operation.

Despite the slow cutting of the sphincter, rates of faecal incontinence have been related to the use of a cutting seton or staged fistulotomy. These rates range from around five per cent to thirty per cent, as noted by Shanwani et al. [14]. (1)

5. Conclusion

The comparative study between Ligation of Intersphincteric Fistula Tract (LIFT) and Seton in the treatment of perianal fistula reveals nuanced findings crucial for clinical decision-making. Both techniques demonstrate efficacy in managing perianal fistulas, yet considerations such as recurrence rates, postoperative complications, and patient-specific factors are pivotal in determining the optimal approach. Further research and long-term follow-up studies are warranted to refine treatment algorithms and enhance patient outcomes in this challenging condition.

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