



General Surgery

A STUDY OF LIGATION OF THE INTERSPHINCTERIC FISTULA TRACT (LIFT)-A SPHINCTER SAVING TECHNIQUE FOR FISTULA-IN-ANO

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ABSTRACT

Summary: Treatment of fistula-in-ano is challenging due to the risk of anal incontinence and potential recurrence. Ligation of the Intersphincteric fistula Tract (LIFT) technique is a sphincter preserving procedure for treatment of anal fistula. Our study aimed at analysing effectiveness of LIFT, to identify its potential impact on anal incontinence as well as the recurrence along with the post operative complications. Subject and Methods: This was a non randomized trial that was carried out as a before and after comparison on 71 patients of fistula in ano presenting in TMMC&RC, from July 2021 till October 2022. Result: 71 patients [54 men, 17 women; mean age 45 year (range 18-75 years)]. The success rate in terms of anal sphincter preservation was 100%. Post operative pain and swelling was observed in 3 (4.2%) patients. Recurrence of fistula was seen only in 3 patients (4.2%). Conclusion: It can be concluded from the research study that the LIFT procedure is associated with the total preservation of the anal sphincter. It is also clear that the post-operative pain/swelling /discharge or inflammation is very less with minimal rate of fistula recurrence. Its safe to say that LIFT technique has the potential to become gold standard for treating fistula in ano.

KEYWORDS : fistula in ano, anal incontinence, LIFT (Ligation of the Intersphincteric fistula Tract), anal fistula surgery

INTRODUCTION

A fistula is considered to be a normal link in between two different hollow organs or in between the epithelial tissue and its skin line to that with the hollow organ. Fistula-in-ano is a type of tract that deeply connects the rectum or the anal canal with that to the skin that is present around the anus.

This type of particular clinical condition is unable to heal because of the persistent kind of closed sepsis and it is the tract of fistula where it enters constantly with the help of the internal opening therefore surgery is the mainstay treatment.

Depending on the complexity of the issue fistula has been divided into two types:

1. Simple
2. Complex.¹

According to Park's classification anal fistula can be divided as^{2,3}:

1. Intersphincteric : confined along the Intersphincteric plane
2. Trans-sphincteric : this one transversus the external kind of sphincter that keeps on communicating with the ischiorectal fossa.
3. Extrasphincteric : This keeps on extending from the rectum till the perianal skin that is external to that of the sphincter apparatus.
4. Suprasphincteric : it also keeps on standing the cephalad over the external sphincter that perforates till the levator Ani.^{8,9}

Surgery being the only way for treating fistula some possible damage of the sphincter apparatus can also be formed along with the alteration of the continence that can be responsible for compromising outcomes. Patients having the Coexisting Crohn's disease that frequently gets followed with a long and a complicated postoperative course.^{5,7}

Various techniques of surgical type has been explained for carrying out the treatment of the same which includes the usage of the following:

- Fibrin glue
- Collagen plugs
- Seton
- fistulotomy
- Rectal advanced flaps
- Repair of sphincter

- Rerouting of fistular tract

However, the results of these techniques has turned out to be variable and no particular procedure is also superior to the other procedures in an absolute manner and it is what the concern of the surgeons that the main aim of any treatment process is obliterating the tract and for having a low recurrence rate besides maintaining full continence in the patients.^{3,4} Fistulotomy method that was used most widely. But this treatment method has limited rate of high cure which is due to the fact that it opens the trans-sphincteric fistula tract by cutting both the external as well as internal sphincter that has the risk of the fecal incontinence which ranges upto 40%.^{5,6,7}

Since the year 2007, the LIFT method for carrying out the management of the anal fistula got introduced and it started showing its initial success. Rojanasakul from Thailand had reported the novel surgical sphincter method which is known as LIFT or Ligation of the Intersphincteric fistula Tract. In this particular procedure the fistula tract is being approached through the Intersphincteric plane and it does not involve the severing of any kind of sphincters.^{6,8,9}

LIFT TECHNIQUE:

LIFT is known as the Ligation Of The Intersphincteric fistula Tract that is considered to be one of the most simple procedure that have been providing no kind of anal incontinence and comes with a low rate of recurrence. It is a two centimetre of incision that is created in the anal verge parallelly inside the Intersphincteric groove, the Intersphincteric plane in between the internal as well as external sphincter that is reached. The fistulous tract has been identified and is being hooked out after which the old gets sutured in the layers.^{10,11,12}

This LIFT technique also come with the following advantages :

1. Preservation of their anal sphincter
2. Minimum injury of the tissue
3. No additional cost
4. Shorter time for healing^{13,14}.

Subjects and Methods: This was a non randomized trial that was carried out before and after comparison among the patients from July 2021 till October 2022 on 71 patients of fistula in ano presenting in TMMC&RC

Inclusion criteria: All patients presented with fistula in ano from ages 18-75 years in surgery OPD of Teerthanker Mahaveer Medical College and Research Centre.

Exclusion criteria: Patients suffering from Malignancy, Trauma, Eneteric encephalopathy , k/c/o liver disease, k/c/o renal disease, k/c/o heart disease or on steroid intake

Statistical Analysis: All analysis was performed using SPSS version 20. Mean and standard deviation were calculated for quantitative data and frequency & percentages were calculated for qualitative data. The Chi-square test or Fisher Exact Test were used to find the association between categorical variables and to compare the Mean we use One-Way ANOVA Test and Independent t-Test. The level of significance was considered as <0.05 or 5%.

Results:

Table1: - Represent the frequency distribution of Parameters of anal incontinence(n=71).

		No of Cases	Percentage
ANAL INCONTINENCE 4WKS	NO	71	100.0
ANAL INCONTINENCE 12 WKS	NO	71	100.0
ANAL INCONTINENCE 6MONTHS	NO	71	100.0

Table shows the frequency distribution of Parameters, where in ANAL INCONTINENCE 4WKS ,12 WKS and6MONTHS in71 subjects were found in None i.e. 100.0%

Table2: - Represent the frequency distribution of Parameters of post operative outcomes and recurrence(n=71).

		No of Cases	Percentage
RECURRENT PAIN, SWELLING, DISCHAGRE, INFLAMMATION	YES	3	4.2%
	NO	68	95.8%
RECURRENCE	YES	3	4.2%
	NO	68	95.8%

Table shows the frequency distribution of Parameters, where in RECURRENT PAIN, SWELLING, DISCHAGRE, INFLAMMATION 3 subjects were found in Yes i.e. 4.2% and 68 subjects were found in No i.e. 95.8% and in RECURRENCE 3 subjects were found in Yes i.e. 4.2% and 68 subjects were found in No i.e. 95.8%

DISCUSSION

The table 1 have shown the frequency distribution of the parameters and in regards to that most of the cases has been noticed to not have experienced the anal incontinence even by end of 6 months. Our results were almost similar to that of the researchers Ooi et al., who also did not found any cases reporting with the anal incontinence during the follow of period of 1 month 3 month and at 6 months¹⁶.

The 2nd table shows that three cases had swelling, inflammation and discharge from the affected region and recurrent pain also existed for them. While comparing these results to that with the one from the researchers Stellingwerf et al., where 6.7% reported pain as well as swelling¹⁷. Exceptionally the study of the researchers Zhao et al., identified that only one case in their study had such complaints.

The table also shows Recurrence to be negative for 95.8% of the cases and only 4.2% of the cases fell under the yes portion of the rate of recurrence . It was similar to the researchers Ellis, where the rate of recurrence came up to be 5.3% only¹⁹. Even researchers like Madbouly et al., as well as Zirak-Schmidt et al., have noticed a very minor rate of recurrence in their studies and the values were 3.9% and 4.8% respectively^{20,21}.

CONCLUSION

It can be concluded from the research study that the ligation of the intersphincteric procedure for the surgery of fistula in ano can be a helpful one to proceed with. The reason is that this process is usually associated with the preservation of the anal sphincter that turns up to be a very safe as well as easy method to perform. In this method the rate of anal incontinence is also noticed to be negative for majority of the cases during the follow up period. Is also clear that the recurrence of pain or swelling is also not observed in the majority of the cases. Even discharge and inflammation is also very less in number as per the rate of recurrence. The least technique does seem to be a very safe as well as

easy method to perform and encourages early outcomes as well.

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