EVALUATION OF LIGATION OF INTERSPHINCTERIC FISTULA TRACT [LIFT] PROCEDURE IN THE TREATMENT OF ANAL FISTULAS.

General Surgery

Anand Deoraj  
Senior Resident, Department of General Surgery, Indira Gandhi Institute Of Medical Sciences, Patna/India

Nadeem Ahmad*  
Assistant Professor, Department of General Surgery, Indira Gandhi Institute Of Medical Sciences, Patna *Corresponding Author

Kanchan Sone Lal Baitha  
Assistant Professor, Department of General Surgery, Indira Gandhi Institute Of Medical Sciences, Patna

Prem Prakash  
Associate Professor, Department Of General Surgery, Indira Gandhi Institute Of Medical Sciences, Patna

Abhishek Chaudhary  
Senior Resident, Department Of General Surgery, Indira Gandhi Institute Of Medical Sciences, Patna

ABSTRACT

Our study aims to analyse the success rate of ligation of intersphincteric fistulous tract [LIFT] as a surgical technique in the management of fistula in ano in terms of healing, recurrences and continence status. Ours was a prospective study of 42 patients admitted in our hospital IGIMS from September 2018 to September 2019 presenting with fistula in ano and treated with LIFT technique. Healing, recurrences and continence were analysed during a 24 weeks follow-up period. Primary healing (success) was seen in 34 out of 42 patients (80.95%). Recurrence (failure) was seen in 8 out of 42 patients (19.04%). Incontinence was not observed in any of the patients. LIFT with its simple technique and short learning curve is a novel approach to treat simple as well as complex fistula in ano with acceptable outcomes.

KEYWORDS

INTRODUCTION:
Perianal abscess and anal fistula represent two sides of the same coin which is infection of the anal glands. The former represents the acute phase while the latter the chronic phase.[1] The treatment for anal fistula has always been surgical ranging from the traditional ksharasutra (seton) and fistulotomy to modern day LIFT and VAAFT but each of the procedures carry a risk of either recurrence and/or some degree of incontinence. LIFT is a novel sphincter sparing approach developed by Dr Arun Rojanasakul et al, in 2007 and is based on the theory that ligating and excising the intersphincteric portion of the fistulous tract would close the internal opening and eradicate the septic focus.[2][3] As the sphincter is spared chances of incontinence is negligible. The success rates in different studies have varied from 47-95%[4][5]. Our aim in the present study is to evaluate the success rate of LIFT procedure done for low as well as high lying complex fistula which presented for the first time.

MATERIALS AND METHODS:
A prospective study was carried out among 42 patients suffering from fistula in ano admitted in IGIMS, Patna between August 2018 to August 2019.

Inclusion criteria: (a) age >18 years (b) newly diagnosed fistula in ano without history of any perianal operation.

Exclusion criteria: (a) age <18 years (b) recurrent fistula in ano (c) previous history of any perianal operation (d) preoperative incontinence (e) concomittent inflammatory bowel disease, tuberculosis, malignancy.

Preoperative investigations: digital rectal examination, proctoscopy, MR fistulogram.

Preoperative preparation: nil orally from midnight the night before operation, per rectal enema the night before operation as well as 2 hours before operation.

Operative procedure: With patient in jack knife position and under spinal anaesthesia firstly the external opening was identified then the opening was incised and methylene blue solution and hydrogen peroxide solution through the external opening. Now through a curvilinear incision intersphincteric portion of the fistulous tract was identified. The tract in this plane was hooked and ligated close to the internal sphincter using vicryl 2-0 and divided distal to it (fig.1). The curvilinear incision was closed by interrupted sutures. The remaining fistulous tract was excised and thoroughly curetted. The wound was left for open passive drainage.

Follow-up:
All the patients were followed up for a period of six months and were clinically evaluated for recurrence/ persistence of local sepsis and incontinence during each visit.

Success was defined as complete healing with no evidence of local sepsis in the form of abscess at any time during follow-up. Failure was defined as either persistence or recurrence of local sepsis at any time during the follow-up period.

RESULTS:
A total of 42 newly diagnosed anal fistula patients were operated by LIFT procedure. Out of 42, 23 were male (54.76%) and 19 were female (45.23%). However no definite relationship was found between gender and fistula incidence. Maximum number of patients were of the age group 41-50 years [Table. 1]. 3 patients were found obese while 7 patients were found to have comorbidities like diabetes and hypertension. According to anatomical level 76.19% of fistulas were...
Success rate in our study was as high as 80.95% which is consistent with the success rates of Shanwani et al (77%) [9] and Makhlouf and Korany (90%) [10]. One of the reasons for a fairly high success rate could be small sample size, strict selection criteria including only newly diagnosed fresh cases without suffering from tuberculosis and inflammatory bowel disease and short term follow-up of only 24 weeks. Extended follow-up of 12 to 16 months is needed for better understanding of long term outcomes of LIFT.

LIMITATIONS:
Ours was a single institution, small sample size, which included only newly diagnosed cases without history of any previous operation. Moreover our follow-up duration was also short. These factors may overestimate the success rate.

REFERENCES:

DISCUSSION:
Intersphincteric fistula (45%) happens to be the most common fistula in ano followed by transphincteric (30%) and suprasphincteric (30%) (Park's classification)[6]. This is consistent with our study where intersphincteric fistula was the most common (59.5%). Discharge from the external orifice was the most common complain followed by pain in the perianal region similar to the studies done previously[7]. None of the patient in our study was lost in follow-up and in none of them clinical incontinence (fetal or gas) was reported in the 24 weeks period of follow-up.

A failure rate of 19.04% was found in our study which included persistence of ongoing disease as well as reoccurance. Reasons for failure could be –
(a) Technical error in identification of true fistulous tract which often happens in obese patients having a lot of perianal pad of fat. In our study 3 patients were obese. Wallen et al. [8] believed that misidentification of true intersphincteric fistulous tract and its incomplete ligation could well being the main reasons for operating failure.
(b) Associated comorbidities like diabetes and hypertension. In our study 7 patients had these comorbidities.

Success rate in our study was as high as 80.95% which is consistent

---

**Table 1. Age distribution of study population.**

<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>NO. OF PATIENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>4</td>
<td>9.5 %</td>
</tr>
<tr>
<td>31-40</td>
<td>9</td>
<td>21.4 %</td>
</tr>
<tr>
<td>41-50</td>
<td>16</td>
<td>38.09 %</td>
</tr>
<tr>
<td>51-60</td>
<td>8</td>
<td>19.04 %</td>
</tr>
<tr>
<td>&gt;60</td>
<td>5</td>
<td>11.9 %</td>
</tr>
<tr>
<td>TOTAL</td>
<td>42</td>
<td>100 %</td>
</tr>
</tbody>
</table>

**Table 2. Types of anal fistula according to anatomical level.**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NO. OF PATIENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersphincteric</td>
<td>25</td>
<td>59.5 %</td>
</tr>
<tr>
<td>Transphincteric</td>
<td>10</td>
<td>23.80 %</td>
</tr>
<tr>
<td>Suprasphincteric</td>
<td>7</td>
<td>16.66 %</td>
</tr>
<tr>
<td>TOTAL</td>
<td>42</td>
<td>100 %</td>
</tr>
</tbody>
</table>

**Table 3. Distribution of primary fistulous tract.**

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>NO. OF PATIENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge</td>
<td>42</td>
<td>100 %</td>
</tr>
<tr>
<td>Perianal pain</td>
<td>25</td>
<td>59 %</td>
</tr>
</tbody>
</table>

**Table 4. Distribution of symptoms**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NO. OF PATIENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersphincteric</td>
<td>1</td>
<td>2.38 %</td>
</tr>
<tr>
<td>Transphincteric</td>
<td>4</td>
<td>9.52 %</td>
</tr>
<tr>
<td>Suprasphincteric</td>
<td>3</td>
<td>7.14 %</td>
</tr>
</tbody>
</table>

Success rate: 34 (80.95%).