Lift Technique for Fistula in ANO with Redefined Criteria – A Step towards Better Outcome.

Dr. Tanweerul Huda (MBBS), Dr Mhaske Ashok (MS)
Department of Surgery, People’s College of Medical Sciences & Research Centre, Bhopal, India.
Address for correspondence: Dr Ashok Mhaske, Vice Dean, Professor & Head – Surgery, People’s College of Medical Sciences & Research Centre, Bhopal, India.

**Objective:** To reemphasize LIFT technique for fistula in ano with redefined inclusion and exclusion criteria developed by Thai surgeon Arun Rojanasakul & to standardize the procedure for our setting.

**Material & Method:** A prospective observational study in 32 fistula in ano patients treated by LIFT technique from Sept 2011 to March 2013.

**Result:** Fistula in ano healed primarily in all 32 patients as inclusion and exclusion criteria were strictly observed. Average healing time was around 4-6 weeks. 1 fistula took around 8wks to heal as the patient had immunocompromised status.

**Conclusion:** Results of standardized lift technique are impressive & this technique can be implemented widely for treatment of fistula in ano provided inclusion & exclusion criteria are strictly observed.

**Keyword:** LIFT TECHNIQUE, FISTULA IN ANO, ARUN ROJANASAKUL.

**I. Introduction**

Anal fistula is an abnormal connection between the epithelialized surface of anal canal and (usually) the perianal skin [1]. Fistula in ano does not heal spontaneously due to fecal particles entering internal opening causing infection & the intersphincteric tract is compressed between the internal & external sphincter causing a closed septic foci [1]. Surgical techniques used are – Lay-open of fistula-in-ano, cutting seton, seton stitch, fibrin glue injection, fistula plug, endorectal advancement flap, vaaft etc. [1].

Complications are – recurrence, incontinence, anal stenosis etc. [1]. Recurrence rate of lay open of fistulotomy is around 2-9%, with functional impairment of from 0-17%[1].Seton use has a recurrence rate of 0-8%.Incontinence rates of 2-26%.Endorectal advancement flap has healing rate of 98% with minor & major incontinence of 31 & 12%.Direct closure of internal opening has a 22.5% recurrence rate & 6% minor incontinence[1].

Healing rate of debridement with fibrin glue injection was from 14-60% & incontinence was not reported [1]. Fistula plug has a failure rate of around 13% [1].

LIFT is a new technique of intersphincteric fistula-in-ano tract ligation developed by Thai surgeon Arun Rojanasakul for saving the anal sphincter during fistulectomy.

Our study aimed to improvise effectiveness of this technique with redefined inclusion and exclusion criteria.

**II. Materials & Methods**

After screening with predefined criteria all 32 fistula in ano patients (26 males, 6 females) reported at our hospital during period from Sept 2011 to March 2013 were operated using standard LIFT technique. Transspinhcetric fistulas in ano were selected. All patients were continent & had no history of any chronic disease. All patients were precounselled regards the procedure & written consent taken.

**RE-DEFINED INCLUSION CRITERIA**

1. Age (27-56) years.
2. Proved cases of transspinhcetric low anal fistula without co-morbid conditions.
3. Maturation of tract.
4. Antibiotic cover preoperatively for three days – 3rd generation cephalosporins.

**RE-DEFINED EXCLUSION CRITERIA**

1. Patients with granulomatous diseases
2. Anorectal abscess

**Assessment of wound healing [1]**
Grade 1: Complete epithilization of wound.
Grade 2: Healing wound with granulation.
Grade 3: Granulation with purulent discharge.
Grade 4: Non healing, not healed at 10 wks.

**Assessment of clinical continence** [1]
Category A: Continent of solid & liquid stools & flatus (i.e. normal continence)
Category B: Continent of solid & usually liquid stools but not flatus (no fecal leakage)
Category C: Acceptable continence for solid stool but no control over liquid stool or flatus.
Category D: Continued fecal leakage.

### III. Results
Data of 32 patients (26 males, 6 females), aged between 25 to 65 yrs. were analyzed. All patients had transphincteric fistulas. Mean length of hospital stay was 3-7 days. Mean healing time was 4wks (range from 2-6 wks.) Primary healing of intersphincteric incision healed in all patients. There was no change in continence status postoperatively (as intersphincteric plane was strictly adhered). No complications were observed except one (Details of complication in our study).

### IV. Discussion
Fistula in ano is known to have recurrences and incontinence & till date there is no single technique accepted for its treatment. Many techniques have been developed for treating fistula in ano like cutting Seton, Seton stitch, fibrin glue injection, fistula plug, endorectal advancement flap, anoderm island flap, vaaff technique etc.
Arun Rojanasakul developed this LIFT technique for treating fistula in ano & saving the anal sphincter. Proposed advantages of LIFT technique are [1]:
1. Anal sphincter saving.
2. Minimal tissue injury leading to shorter healing time.
4. Can be done in previously operated patients.
5. Reoperation can be done after the procedure in case of recurrence.
Different studies have shown success rates of LIFT technique ranging from 63-94.4%.
In our setup also the success rate was around 100% with redefined criteria. Hence if the effectivity of the technique is to be improvised we feel after this study that strict adherence to redefined criteria is mandatory.

### V. Conclusion
LIFT technique is indeed a sphincter saving technique for treating fistula in ano but we feel that its effectiveness will be improved if redefined inclusion & exclusion criteria are strictly adhered to.

#### TABLE 1. Incidence of complications with LIFT technique:

<table>
<thead>
<tr>
<th>Complication</th>
<th>Rate</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrence</td>
<td>17.5%</td>
<td>Mostly due to faulty technique.</td>
</tr>
<tr>
<td>Anal Incontinence</td>
<td>0%</td>
<td>No change in anal continence if intersphincteric plane adhered to.</td>
</tr>
</tbody>
</table>

#### TABLE 2. Various techniques - Comparative Chart

<table>
<thead>
<tr>
<th>Technique</th>
<th>Highlights</th>
<th>Success Rate</th>
<th>Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fistulotomy</td>
<td>Oldest technique</td>
<td>0-64%</td>
<td>Recurrence (2%-9%) Incontinence (0%-17%)</td>
</tr>
<tr>
<td>Cutting seton</td>
<td>Mainly for low anal fistulas</td>
<td>0-58%</td>
<td>Recurrence (0-8%) Incontinence (2-63%)</td>
</tr>
<tr>
<td>Fibrin Glue</td>
<td>Conservative technique. Useful in most fistulas</td>
<td>14-60%</td>
<td>Recurrence (20-83%)</td>
</tr>
<tr>
<td>Endorectal Advancement flap</td>
<td>Used for complex fistula in ano.</td>
<td>36.6%-98.5%</td>
<td>Recurrence (5-37%) Incontinence (0-35%)</td>
</tr>
<tr>
<td>Anodermal advancement flap</td>
<td>Used for complex fistula in ano.</td>
<td>48-83%</td>
<td>Recurrence (2-40%) Incontinence (0-15%)</td>
</tr>
<tr>
<td>Fistula plug</td>
<td>Can be used as a primary treatment modality in most fistulas.</td>
<td>31-83%</td>
<td>Recurrence (12-38%)</td>
</tr>
</tbody>
</table>
TABLE 3. Comparative data of LIFT Technique at various centers.

<table>
<thead>
<tr>
<th>Study-Name</th>
<th>Success rate</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rojanasakul et al. (Thailand)</td>
<td>94.4%</td>
<td>Novel sphincter saving technique</td>
</tr>
<tr>
<td>Shannawi et al. (Malaysia)</td>
<td>82%</td>
<td>Safe &amp; Easy to perform with good outcomes</td>
</tr>
<tr>
<td>Bleier et al. (USA)</td>
<td>63%</td>
<td>Large scale study warranted</td>
</tr>
</tbody>
</table>

References


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