

## Fistula in ano: our experience at a rural based teaching hospital

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### Abstract

**Objective:** To observe the outcome of conventional techniques for the treatment of Fistula in Ano, both low and high types at rural based hospital.

**Patients and method:** It was a prospective study carried out at the Department of General Surgery and Urology, Muhammad Medical College Hospital, Mirpurkhas from August 2006 to July 2008. During these two years 47 cases were admitted and operated for fistula in Ano. Patients of all age group were included in the series. Surprisingly no female patient reported during the study. Result were analyzed.

**Results:** Total patient dealt with were 47. All were males. Fistulae of low type were found in 36 (76.59%) whereas that of high type was found in 11 (23.04%). Among the low (n-36) type 30 were Single (83.33%) and 6 were multiple (9.52%). Among the high (n-11) type 7 were single (63.6%) and 4 were multiple (36.3%) Age group varied from 2 years to 54 years ( mode: 32-38). Histopathology performed in all cases, which revealed tuberculosis in 2 cases (4.2%). No malignancy was found. All low type fistulas in Ano were dealt with by Fistulotomy. The cure rate was found to be 100%. All high type dealt with by seton of Prolene suture of size one with weekly tightening of the knots. All cases healed successfully

**Conclusion:** For low type fistula in ano fistulotomy is a simple method with satisfactory therapeutic results. For high type fistula in ano cutting Seton is a well-accept method with high rate of success.

**Keywords:** Fistula in ano, Fistulotomy, High fistula in ano

### Introduction:

The majorities of fistulae arise from a previous non-specific crypto glandular infection or improperly drained or ruptured abscess either perianal, ischorectal, inter sphincteric, supralelevator or deep post anal space abscess<sup>1</sup>.

Conservative treatment through expectant therapy with antibiotics and sclerosing injections of fistulae can occasionally work<sup>2</sup>.

The surgical principles including the identification of internal opening with proctoscopy, assessment of the course of the fistula tract, with fistulogram and CT scan assessment of the involvement of sphincter muscle incorporated within the fistula tract and choosing an appro-

priate techniques that maximizes the healing and minimizes the sphincteric injury there by preserve continence<sup>3</sup>.

Various techniques have been used so far for treating low type and high type fistulae in Ano. Out of these most popular one are laying open the fistula or Fistulotomy and placement of a Seton as a cutting device.

In current study we have used both these techniques in low and high/intrasphenteric fistulae in ano respectively.

### Patients and methods:

This prospective study was carried out at Department of Surgery Muhammad Medical Col-

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lege Mirpurkhas from August 1st 2006 to July 31st 2008.

During these two years 47 cases were admitted and operated for fistula in Ano. Patients of all age group were included in the series. All patients with low and high types were included whether single or multiple. Only those patients were excluded who refused for Seton Patients with recurrent fistula in Ano were included in the study.

### Results:

Total patients dealt with were 47. All were males. Fistulae of low type were found in 36 (76.59%) whereas that of high type was found in 11 (23.04%). Among the low type 30 were single (83.33%) and 6 were multiple (9.52%). Among the high type 7 were single (63.6%) and 4 were multiple (36.3%) Both low and high type's fistulae were located at different positions as show in Table 1 and 2 respectively.

In high type fistula in Ano, 4 cases (36.3%) were associated with one or more low type fistulae. Age group varied from 2 years to 54 years (mode: 32-38) Histopathology performed in all cases, which revealed tuberculosis in 2 cases (4.2%) and chronic non-specific inflammation in 45 (95.7%). No malignancy was found. Fistulotomy was done in all low type fistula in Ano. The wound left opened and kept on regular dressings. The cure rate was found to be 100%. The length of time for wound to heal was 13-22 days (Mean: 17 days).

All high type fistula in Ano (single) were dealt with by Seton of Prolene one with weekly tightening of the knots. In those high type fistulae associated with low type, were dealt with by Fistulotomy and tissue taken for histopathology for low and its high component by Seton. All cases healed successfully. The length of time for wound to heal was 28-69 days (Mean: 42 days). Two cases were of category recurrent fistulae operated twice or more in the some peripheral centre. Problems with setons are listed in Table III.

Table 1: *Low type fistula in ano*

| Position            | No. of cases |
|---------------------|--------------|
| 2'O Clock position  | 09           |
| 3'O Clock position  | 4            |
| 5'O Clock position  | 6            |
| 7'O Clock position  | 4            |
| 9'O Clock position  | 6            |
| 11'O Clock position | 7            |
| Total               | 11           |

Table 2: *High type fistula in ano*

| Position  | No. of cases |
|-----------|--------------|
| 5'O clock | 5            |
| 6'O clock | 3            |
| 7'O clock | 2            |
| 9'O clock | 1            |
| Total     | 11           |

Table 3: *Problems with setons*

| Problem   | No. of cases |
|---|--------------|
| Locking of Knot   | 1            |
| Seton broken that occurred very close to the completion of the task | 1            |
| Discomfort to the patient   | 11           |

### Discussion:

A perianal fistula is a common condition. It has an incidence of 5.6 per 100,000 in woman and 12.3 per 100,000 in men<sup>4</sup>. The disease occurs predominantly is the third and fourth decade of life<sup>5</sup>. Park etal (1976) developed a classification system in which fistula is divided into intersphincteric fistula, transphincteric fistula, suprasphincteric fistula and extrasphincter fistula<sup>5</sup>. However the type of treatment depends not on the location of the fistula tract but on the level of the internal opening in the anal canal<sup>6</sup>. Low transphincteric fistula comprises less than 1/3 of the external sphincter complex are easy to treat by fistulotomy or fistulectomy with the high success rate<sup>7</sup>.

In our study 36 (76.56) patients as comprised of low type of fistula in ano (n=47). We performed fistulotomy i.e. opening of the tract and removal of dirty and infected tissue. Similar techniques have been adopted in many series<sup>7,8</sup>. In our series no female patient reported with fistula in ano while in other studies male to female in-

cidences is 2:1<sup>9</sup>. Frequency of low type fistula in ano is more than high type and these can be treated in a single procedure without remarkable consequence on continence<sup>10</sup>. In our series 36 (76.56%); (n=47) were of low type and healed very well with simple fistulotomy.

It is generally accepted that, laying open constitutes the only effective cure for anal fistula<sup>11</sup>. The sacrifice of at least some part of the anal sphincter apparatus is therefore the inevitable consequence of every operation of fistula<sup>12</sup>. In the case of an intersphincteric or low transsphincteric fistula only the internal sphincter or lower half of external sphincter need to be incised<sup>13</sup>. This may usually be performed without exchanging post operative faecal incontinence. High transsphincteric or supra sphincteric fistula which involve the entire external sphincter and/or the levator ani muscle<sup>13</sup>, straight forward trans section of these sphincters would lead to fecal incontinence<sup>14</sup>. For this reason such high fistula should be progressively laid open is staged procedure after encircling the sphincter for some weeks with a Seton<sup>15</sup>.

In our series 11 out of 47 (23.41%) were of high types and we adopted the cutting Seton technique in the form of Prolene one suture and tightening was done on weekly basis 16. Though it was a discomfort experience for the patient but all (11/47) healed successfully in average 42 days time. Two of our cases were proved tuberculous on histopathology and were kept as antituberculous therapy.

For high type fistula in ano various forms of techniques are under evaluation like fibrin glue,<sup>17,18</sup> dermal island flap anoplasty<sup>19</sup>. Bioglue surgical adhesive, composed of bovine serum, albumin and glutaraldehyde and staged mucosal advancement anoplasty<sup>20</sup>. Various materials conventionally in use as seton are prolene (polypropylene), silk and stainless steel wire<sup>21</sup>. Newer materials are self locking cables, and a rubber band pulled through fistulous tract and tightening around the external sphincter by a thread tied around its end<sup>22</sup>.

### Conclusion:

For low type fistula in ano fistulotomy is a simple method with satisfactory therapeutic results. For high type fistula in ano cutting seton is a well accepted method with high rate of success. For more complicated cases staged mucosal advancement and dermal island flap anoplasty are also good options.

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