

## Fistulectomy and fistulotomy for low anal fistula

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### Objective

To compare the efficacy of fistulectomy against fistulotomy regarding preventing recurrence of fistula in ano.

### Patients and Methods

The retrospective study included 272 patients with fistula in ano treated at the Royal Medical Services Hospitals (Prince Rashid Hospital) from February 2002 to February 2012. All had low type fistula in ano; other types of fistulas were excluded. They were divided into two groups: the first group who underwent fistulectomy, and the second group who underwent fistulotomy. The follow up was from 1-24 months (mean 12 months). Post operative pain, hospital stay and recurrence rate were assessed.

### Results

Out of 272 patients, 146 patients had fistulectomy, and 126 patients underwent fistulotomy. There were 190 males with mean age of 38 years and 82 females with mean age of 29 years. The recurrence rate was 8 out of 146 (6%) in the 1st group while it was 13 out of 126 (10%) in the 2nd

group. Twenty five patients of fistulectomy group (17%) complained of pain postoperatively on first post operative day, while complaint of postoperative pain was noted in thirty three patients of fistulotomy group (26%). No one suffered incontinence in both groups. The post operative hospital stay period in fistulectomy group was 2 days (range 1-4 days), and that in fistulotomy group was 3 days (rang 1-5 days). The time needed for healing in case of fistulectomy was about 3 weeks, while in fistulotomy needs about 4 weeks. 220 (81%) patients were discharged within 3 days of surgery.

### Conclusion

The recurrence rate and healing time following fistulectomy was better than fistulotomy. Fistulectomy patients has less hospital stay, less post operative pain and less morbidity with better long term results than fistulectomy. (Rawal Med J 2012;37:409-411).

### Key words

Low type fistula, Fistulectomy, Fistulotomy.

## INTRODUCTION

Anal fistula originates from infection in the anal crypts of Morgagni, leading to abscess formation which if it is drained results in a tract leading to the skin surface. With an incidence of around 2 per 10 000 head of population per year, anal fistula is a frequent condition with a peak incidence between 30 and 50 years of age.<sup>1,2</sup> A history of perianal abscess followed by intermittent discharge will almost always be elicited.<sup>3</sup> The aim of this study was to compare fistulectomy with fistulotomy in treating low type anal fistula.

## PATIENTS AND METHODS

The study is based on a sample of 272 patients with fistula in ano treated at the Royal Medical Services Hospitals (Prince Rashid Hospital) from February

2007 to February 2012. Low type fistulae-in-ano were included in the study (distal transsphincteric and the intersphincteric types only) and all patients with suprashincteric type of perianal fistulae were excluded. The patients were evaluated and followed up by reported post operative notes in the clinic. They were divided into two groups: the first group who underwent fistulectomy, and the second group who underwent fistulotomy. Post operative pain, hospital stay and recurrence rate were assessed. The follow up was from 1-24 months with a mean of 12 months.

## RESULTS

Out of 272 patients, 146 underwent fistulectomy, and 126 underwent fistulotomy. There were 190 males with mean age of 38 years (range 16-60 years)

and 82 females with a mean age of 29 years (range 17-41). Both groups had low type of fistula in ano. The recurrence rate was 8 out of 146 (6%) in the 1st group while was 13 out of 126 (10%) in the 2nd group (Table 1).

**Table 1. Recurrence rate (n=272).**

Group	Number of patients	Recurrence rate (%)
1st group (Fistulectomy)	146	8 (6%)
2nd group (Fistulotomy)	126	13 (10%)

Fistulectomy group had less postoperative pain and shorter hospital stay (Table 2). There was no incontinence in either group.

**Table 2. Post operative pain and hospital stay.**

Group	Number with pain (%)	Hospital stay (range)
1st group (Fistulectomy)	25 (17%)	2 (1-4) days.
2nd group (Fistulotomy)	33 (26%)	3 (1-5) days.

The time needed for healing was shorter after fistulectomy, with or without primary closure, than after fistulotomy (Table 3).

**Table 3. Time needed for healing.**

Fistulectomy	3 Weeks
Fistulotomy	4 Weeks

Over 220 (81%) patients were discharged within three days of surgery.

## DISCUSSION

The main area of the fistulous tract is lined by granulation tissue surrounded by a dense fibrous reaction, which may be epithelized which is one factor in the chronicity of this condition.<sup>4</sup> Only one in three perianal abscesses go on to develop an anal fistula.<sup>5</sup> In non complicated anal fistulas, a small amount of anal muscles is encircled and the conventional surgical treatment is to open the fistulous tract (fistulotomy) or completely excise the tract (fistulectomy).<sup>6</sup> It is probably accurate to say that fistula will not heal permanently with any other form of treatment other than surgery. A study showed no significant differences in repeated surgery, recurrence or incontinence rates between

fistulectomy vs. fistulotomy.<sup>7</sup> Malouf advocated conservative treatment for recurrent fistula as he considered a previous fistula surgery a risk factor for incontinence.<sup>8</sup>

Asymptomatic fistula in ano requires surgery; because spontaneous healing is very rare.<sup>9</sup> Fistulectomy causes removal of the epithelialized tract which allows healing by either primary intention or by secondary intention. In our study, the duration of the operation was about 20 minutes in both groups. In a recent retrospective trial on 624 patients, Garcia Aguillar reported a recurrence rate of 8%,<sup>10</sup> which is more or less near to our study results. The operative treatment for anal fistula began with intraanal procedure to detect the internal opening. In most cases, preoperatively, the internal opening was identified by digital examination.<sup>11</sup>

Perianal sinus is diagnosed in patients with the lack of identification of an internal opening intraoperatively. To avoid the diagnosis of perianal sinus and subsequent procedure of sinus tract excision, effort is made on preoperative localization of the internal opening by endo anal ultrasound (EAUS) or MRI. MRI has the sensitivity and specificity of 96% and 90% for detecting the internal opening.<sup>12</sup> No preoperative antibiotics were used in all cases. We found that males were affected more than females.

Non classifiable fistula in ano, in which an internal opening of the fistula cannot be found, can primarily be treated by a single excision of the fistula (fistulectomy).<sup>13</sup> Flap repair associated with fibrin glue treatment may increase failure rates.<sup>7</sup> In cases of multiple fistulae, we did fistulectomy with partial wound closure. During excision of the fistulous tracts and after anchoring the mucosa to the underlying muscle tissue, the skin flaps were mobilized to reduce the raw area. This enhances early healing of fistulous wound.

No case of incontinence occurred in our series due to the fact that the inner orifice of the fistula is located away in the anal canal. The risks to develop incontinence increases with recurrent ano rectal disease.<sup>14</sup> If fistula found with abscess, definitely the treatment is much better if we do fistulectomy vs. fistulotomy with marsupialization and drainage of the abscess than doing drainage alone.<sup>15</sup>

Postoperative pain was less than traditional fistulotomy because of the shorter time spent in coagulating. This gives a faster wound healing.

## CONCLUSION

We showed that fistulectomy was technically advantageous than traditional fistulotomy and had marked difference in the incidence of recurrence. There were fewer continence problems with fistulectomy which had shorter hospital stay, less post operative pain and less morbidity than fistulotomy.

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