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Comparison of Fistulectomy with Fistulotomy in Low Fistula in Ano

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ABSTRACT

Objective — *To compare the outcomes in terms of healing after fistulotomy and fistulectomy for low lying fistulae in ano.*

Study design — *Cross sectional analytic.*

Place & Duration of study — *Department of Surgery, Surgical Unit I, Jinnah Postgraduate Medical Centre Karachi, from June 2013 to May 2015.*

Methodology — *Patients of both genders between 12 to 60 year of age with clinical diagnosis of fistula in ano were included in the study. Pain was assessed on visual and analog scale (VAS) Hospital stay was also recorded. All were followed for four week for any complications.*

Results — *During the study period 120 patients were enrolled. Out of these 60 patients had fistulotomy and 60 underwent fistulectomy for fistula in ano. Male predominated with male to female ratio of 3:1. Swelling (86.6%), discharge (37%) and itching (27%) were the common symptoms. The mean duration of hospital stay was 3 ± 1day. Postoperative wound healing and pain assessed by VAS, were high in fistulectomy group. All patients recovered during follow up except one who continued to complain incontinence from fistulectomy group.*

Conclusion — *Fistulotomy yielded better results as compared to fistulectomy for the treatment with low fistula in ano.*

Key words — *Low fistula in ano, Fistulectomy, Fistulotomy.*

INTRODUCTION:

Fistula in ano is a common surgical problem. It is a track lined by granulation tissue, which connects deeply to the anal canal or rectum and superficially to the skin around anus. The incidence of abscesses and fistula is 1-2 per 10,000 populations. It is more common in males than females with a ratio of 2:1.[1] The common age of presentation is between 20-45 year.

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Different classifications have been used to categorize these fistulae into low or high, simple or complex, or according to their anatomy and relation with the sphincter.[2] According to literature low fistulae are more common than the high fistulae.

Management of fistula require knowledge of etiology and understanding of anatomy.[3] Low fistulae can be easily treated by fistulotomy.[4] High fistulae in ano are difficult to treat since the conventional procedure will lead to division of most of the anal sphincter muscles resulting in incontinence. Number of techniques are used for high fistula in ano like placement of seton, fibrin glu, advancement flap and fistulotomy with reconstruction of sphincters.[5] By using staged procedure without cutting the anal sphincter, almost all fistulae heal with good functional results.[6]

For low fistula in ano either fistlulotomy or fistulectomy

are done. It is commonly observed that fistulectomy is associated with more complications like incontinence compared to fistulotomy.[7] Different studies have been conducted to compare these two procedures in reference to postoperative outcome including postoperative pain, healing time, pateints' stisfaction, incontinance and recurrence. Results of these studies remained contradictory. The purpose of this study was to compare the outcome of these two procedures in our setup.

METHODOLOGY:

This cross sectional analytic study was conducted in the Surgical Unit I, Jinnah postgraduate Medical Centre Karachi, from June 2013 to May 2015. All patients of low fistula in ano, of both gender aged from 12 year to 60 year, were included. All patients were randomly divided into two groups.

Low fistula in ano was defined as single communication of anal canal with skin, involving small portion or none of sphincter complex. It included superficial, low intersphincteric and low trans sphincteric fistulae. Patients with previous history of anal incontinence, high fistulae with complex type, having inflammatory bowel disease, tuberculosis, any co-morbid conditions like diabetes mellitus, ischemic heart disease and malignancy, were excluded.

All patients had proctosopy preoperatively to asses the internal opening and any other abnormality. Ptients were operated in lithotomy position in general or spinal anesthesia with preoperative preparation by enema and antibiotics. Injection of hydrogen peroxide was used to localized internal opening. In fistulectomy procedure the fistulous tract was excised completely while in fistulotomy the fistulous tract was laid open to heal. Patients were discharged on first postoperative day with advise of antibiotic (metronidazole 400mg) and analgesic (diclofenic sodium 50 mg) for five days and sitz bath. Patients were followed for a period of 12 weeks for postoperative complications like pain, discharge, incontinence and recurrence. Pain was recorded by using visual analogue scale from 0-10. Discharge was defined as any serous secretion from the wound. Incontinence was categorized as inability to distinguish gas or stool, unable to hold gas and soling of undergarments.

RESULTS:

During the study period 120 patients were enrolled. Out of 120 patients, 60 patients had fistulotomy and 60 fistulectomy for low fistula in ano. There were 63.3 % patients less than 40 year of age. Male were predominantly involved with male to female ratio of 3:1 (table I). The common symptoms included swelling (86.6%), discharge (37%) and itching (27%). The mean duration of hospital stay was 3 ± 1 day. Postoperative pain score on visual analogue score was high in fistulectomy group (2.68 ± 0.62) as compared to fistulotomy group (2.23 ± 0.50) after one week of follow up and similar findings were noted after fourth week of follow up which was statistically significant (p-value 0.026) as shown in table II.

Post operative discharge which can be categorized as serous, serosangunous and pus was recorded on follow up but there was no statistically significant difference between the groups. Incontinence which patient described as unable to control gas, was found in one patient at sixth week follow up in fistulectomy group. No recurrence was found in both the groups. After 6 weeks patients continued to have problem, one with incontinence (unable to hold the gas) in fistulectomy group, two continued with discharge from wound; one in each group and one with pain during defecation in fistulectomy group. At 12th weeks follow up the incontinence resolved.

DISCUSSION:

Fistula in ano is one the common benign conditions presented in colorectal clinics. Despite advancements in operative field there is still significant morbidity and recurrence rate. Low fistula in ano accounts for most of the cases (about 90%). In this study most of the patients were less than 40 year of age with male predominance. Similar findings have been observed in other studies. In this study the commonest clinical presentation was swelling followed by discharge. Other investigators reported similar clinical presentations but they also reported pain being the common presenting feature.[8]

Table I: Age and Gender distribution

	Fistulotomy	Fistulectomy	p-value
Mean Age + (year)	33.23 (6.25)	33.93 (7.55)	0.581
Male/ Female ratio	2.75:1	3.28:1	0.673

Table II: Postoperative Pain (Visual Analogue Score) and Postoperative Discharge				
	Surgical Procedure Performed			p-value
	Fistulotomy	Fistulectomy	Total	
Visual Analogue Score	Mean(+ SD)	Mean(+ SD)		
1st week follow-up	2.23 (0.50)	2.68 (0.62)		0.000**
4th week follow-up	0.31 (0.53)	0.57 (0.72)		0.026*
1st week follow-up discharge	**n (%)**	**n (%)**	**Total n (%)**	
Serous discharge	59 (98.3)	57 (95)	116 (96.7)	
Serosanguinous discharge	1 (1.7)	2 (3.3)	3 (2.5)	0.415‡
Pus	0 (0)	1 (1.7)	1 (0.8)	
Total	60 (100)	60 (100)	120 (100)	
4th week follow-up discharge	**n (%)**	**n (%)**	**Total n (%)**	
Serous discharge	55 (91.7)	54 (90.0)	109 (90.8)	0.498‡
Serosanguinous discharge	5 (8.3)	5 (8.3)	10 (8.3)	
Pus	0 (0)	1 (1.7)	1 (0.8)	
Total	60 (100)	60 (100)	120 (100)	

Most common problem in postoperative period in this study was discharge followed by pain and both of these were more in the fistulectomy group. The postoperative discharge was serous initially and then became serosanguinous in five patients of both groups at 4th week of follow up and pus came from the wound in one patient of fistulectomy. But these findings were not statistically significant in our study. The discharge from the wound was directly related to wound healing. Similar finding was noted in another study stating that the healing time was prolonged in fistulectomy group but it was not statistically significant.[9] In a systematic review the marsupialization with fistulotomy is reported to reduce bleeding and allows faster healing.[10]

The visual analogue score was significantly higher in fistulectomy group as compared to fistulotomy group. The probable reason is that the wound of fistulectomy is larger than that of fistulotomy. Similar findings were recorded by other authors.[9,11] On the other hand researchers found that postoperative pain was more in patients of fistulectomy group in comparison to fistulotomy group but it was not statistically significant.[12]

The incontinence in fistulectomy group improved with passage of time. In a study the frequency of incontinence reported was 2.4% and the reason of higher rate was inclusion of both high and low fistulae in ano.[13] The rate of incontinence vary with the type of fistula and procedure performed, but in case of fistulotomy for intersphincteric and low anal fistula it is less than 10%.[14] Another study of patients with fistululotomy the incontinence was about 45% but the patients' satisfaction with the procedure was high.[15] In another study where fistulectomy was compared with fistulotomy in low anal fistula, no patient developed incontinence or recurrence with a follow up period of twelve weeks.[16,17] In long term follow up the recurrence rate after fistulotomy was 7%.[18] In our study no patient reported recurrence but follow up is of short duration as compared to other studies.

CONCLUSION:

Fistulotomy was better option as compared to fistulectomy for the treatment of low fistula in ano.

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Muhammad Iqbal Khan: Discussion, References.
Shah Hassan Shah: Data collection. Data analysis.
Sughra Parveen: Review. Introduction.

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