

Research Article

Fistulectomy or Fistulotomy: Better Approach in Fistula-In-Ano

Dr. Deepanshu Sharma^{1*}, Dr. Prashant R. Pipariya², Dr. Samir Gupta³, Dr. Achal Gupta⁴, Dr. Nikhil Chopra¹

¹PG Student, Department of Surgery, Gajra Raja Medical College, Gwalior, India

²Associate Professor, Department of Surgery, Gajra Raja Medical College, Gwalior, India

³Assistant Professor, Department of Surgery, Gajra Raja Medical College, Gwalior, India

⁴Professor and head, Department of Surgery, Gajra Raja Medical College, Gwalior, India

***Corresponding author**

Dr. Deepanshu Sharma

Email: drdeepanshu@gmail.com

Abstract: The clinical study was conducted on 30 patients having the condition of Fistula in ano and the study included the mode of presentation, clinical diagnosis, after examination and imaging modalities which were required and the treatment offered to the patient were studied in detail. The ultimate goal of fistula surgery is to eradicate it without disturbing or minimally disturbing the anal sphincter mechanism. With this goal in mind two procedures were studied Fistulotomy and Fistulectomy. The incidence of incontinence, duration of hospital stay and recurrence of the disease were recorded for the two procedures that were used to treat the patients.

Keywords: Fistula in ano, Goodsalls rule, Fistulotomy, Fistulectomy, seton, Fistulogram, MRI

INTRODUCTION

Fistula in ano is notorious for its frequent exacerbations, recurrences and its chronic condition. The ano rectal abscess is an acute inflammatory process that often is the initial manifestation of the underlying anal fistula [1] and is the chronic condition following inadequate drainage of the abscess. Around 90% of the cases occur due to infected anal glands [2]. Incision and drainage of the abscess cavity will result in complete resolution of the infection in a 50 % of the patients; unfortunately in the rest an anal fistula will develop [3, 4]. Most patients with an overt fistula have an antecedent history of abscess that drained spontaneously or for which surgical drainage had been performed [5]. There are different surgeries mentioned in the literature. The ultimate goal of fistula surgery is to eradicate it without disturbing or minimally disturbing the anal sphincter mechanism.

The clinical study was conducted on 30 patients having the said condition and the study included the mode of presentation, clinical diagnosis, after examination and imaging modalities which were required and the treatment offered to the patient were studied in detail.

MATERIALS AND METHODS

A total number of 30 patients diagnosed with fistula in ano were included in this clinical study. These 30 patients presented themselves with their complaints to the Surgery out patient department and who were admitted under the Department of Surgery, Jayarogya

hospital, Gwalior. They were admitted and treated in Surgery Department of Jayarogya Hospital, Gwalior during July 2012 to July 2013. All the 30 patients were admitted in the surgical wards. The patients were seen in the out patient department by the consultants and admitted in their own respective units. The patients were not randomized for any imaging modality or surgical procedures.

Detailed history including the past history of anorectal abscess and of previous fistula surgery was taken. The mode of presentation, other co morbid conditions like diabetes, the findings on clinical examination (digital examination and proctoscopy) were recorded for individual patients. A complete blood count, random, blood sugar, HIV, HBs Ag, HCV (ELISA), ESR, Montoux and a chest X ray were mandatory in all patients. The discharge from the external opening was sent for culture and sensitivity studies.

Following two methods were adopted for treating the patients:

Fistulotomy

In fistulotomy, the entire tract from the internal opening to the external opening was laid open. The cut edges of the anal mucosa and the underlying anal sphincter were over sewn for hemostasis. A thorough cleansing with normal saline and Betadine was done.

Fistulectomy

The entire tract was excised in Fistulectomy which was sent for histopathology examination. Primary closure was an option depending on the wound size.

RESULTS

Following are the findings of the study conducted on patients diagnosed with fistula in ano.

Table 1: Percentage of patients treated with either of the two procedures

	Number	Percentage
Fistulectomy	18	60%
Fistulotomy	12	40%

Table 2: Percentage of patients showing Incontinence with either of the two procedures

Procedure	Number	Percentage
Fistulectomy	9	50%
Fistulotomy	3	25%

Table 3: Duration of hospital stay of patients treated with either of the two procedures

Procedure	Average hospital stay
Fistulectomy	5.83 days
Fistulotomy	5.25 days

Table 4: recurrence of fistula in ano among patients treated with either of the two procedures

Procedure	Recurrence
Fistulectomy	Nil
Fistulotomy	1 (8.3%)

Histopathology report, patients treated with either of the two procedures reported following findings:

Out of 18 cases of Fistulectomy, 1 case had the report of tuberculous fistula in ano. The other 17 were cases of non-specific infection (93.5%).

Statistical Tests

Chi square test conducted on procedure followed and incidence of Incontinence recorded

Table 5: Procedure * Incontinence Cross tabulation

		Count		
		Incontinence		Total
		Yes	No	
Procedure	Fistulectomy	9	9	18
	Fistulotomy	3	9	12
Total		12	18	30

Table 6: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.875 ^a	1	.171		
Continuity Correction ^b	.978	1	.323		
Likelihood Ratio	1.931	1	.165		
Fisher's Exact Test				.260	.162
Linear-by-Linear Association	1.813	1	.178		
N of Valid Cases	30				
a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.80.					
b. Computed only for a 2x2 table					

t test conducted on Procedure followed and duration of hospital stay showed following result:

Table 7: Group Statistics showing duration of hospital stay

Procedure	No. of patients	Mean hospital stay (in days)	Standard Deviation	Standard Error Mean
Fistulectomy	18	5.83	1.098	.259
Fistulotomy	12	5.25	1.138	.329

Table 8: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hospital Stay	Equal variances assumed	.155	.697	1.405	28	.171	.583	.415	-.267	1.434
	Equal variances not assumed			1.395	23.126	.176	.583	.418	-.282	1.448

Out of the 30 patients treated with fistulectomy and fistulotomy, the chi square test concludes that fistulectomy led to higher incidence of minor incontinence. While the difference between the two procedures with respect to duration of hospital stay is not significant.

DISCUSSION

This study has given an insight into the mode of presentation of anal fistula and the various investigative and treatment modalities which can be offered to the patient. A digital anorectal examination and proctoscopy were sufficient to establish the diagnosis in approximately 90% of the patients. Fistulogram could yield information regarding the presence of an internal opening; however this modality gives no information regarding the fistula tracts relation to the anal sphincter complex. MRI is advisable in cases of complex fistulas.

Out of 30 patients in the study group, a fistulotomy was done in 12 patients and fistulectomy in 18 patients. Minor incontinence was noted in 12 patients, in 3 patients who underwent fistulotomy and 9 patients who underwent fistulectomy.

Fistulectomy is associated with a higher rate of incontinence since muscle separation necessarily occurs after excision of the complete tract. Primary closure of the wound can be done when the wound left after Fistulectomy is linear, but a high percentage of these wound break down to heal by secondary intention.

The average stay in the hospital in cases of fistulotomy and Fistulectomy was approximately the same. Of the 18 cases in whom the samples were sent for HPE, 17 had shown tract lined by granulation tissue

which was suggestive of non specific fistula in ano. The case diagnosed as tuberculous fistula showed granulation tissue containing multiple granuloma and Langhans type of giant and inflammatory cells.

CONCLUSION

- Fistulectomy as a procedure led to more incidences of incontinence.
- The duration of hospital stay when compared to fistulotomy and fistulectomy were the same. In all cases of fistulectomy with tract excision, excised tissue should be sent for histopathology as it might be a tubercular fistula-in-ano.

REFERENCES

1. Standing S; Gray's Anatomy, The anatomical basis of clinical practice. Philadelphia: Churchill Livingstone, 40th edition, 2009: 1780-1781.
2. Parks AG, Gordon PH, Hardcastle JD; A classification of fistula in ano. Br J Surg., 1976; 63(1): 1-12.
3. Zinner M, Ashley SW; Maingot's abdominal operations. New York: McGraw Hill Company, 12th edition, 2013:1443-1451.
4. Fry RD, Birnbaum EH, Lacey DL; Actinomycosis as a cause of recurrent perianal fistula in the immunocompromised patient. Surgery, 1992; 111(5): 591-594.
5. Barwood N, Clarke G, Levitt S, Levitt M; Fistula in ano: a prospective study of 107 patients. Aust N Z J Surg., 1997; 67(2-3): 98-102.