ORIGINAL RESEARCH PAPER

Volume-8 | Issue-5 | May-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

FISTULA-IN-ANO: A CLINICO-PATHOLOGICAL STUDY

Surgery

Gyanendra Senior Resident, Department of General Surgery, AIIMS, Jodhpur

Ashish Jaiswal* Senior Resident, Department of General Surgery, AIIMS, Jodhpur *Corresponding Author

ABSTRACT

INTRODUCTION: Perianal fistulae account for a substantial discomfort and morbidity to the patient and although many fistulae are easily recognized and treated, others can be complex and difficult to treat. The aim of this paper is to study etio-pathogenesis and clinical presentation of fistula-in-ano.

MATERIAL AND METHODS: 50 patients were selected who were diagnosed with fistula-in-ano admitted in Medical College and Hospital, Kolkata during January 2016-june 2017. Data related to the objectives of the study were collected.

RESULTS: Perianal abscess is the main etiological factor for fistula-in-ano. Nonspecific inflammation is the predominant histopathology report. It was found that fistula- in- ano most commonly affects adults in 4th decade, which is more common in males compared to females. The fistulae were classified into 4 groups. Subcutaneous, Submucous, low anal and high anal with low anal variety being the most common type (82%).

KEYWORDS

Fistula in ano, Fistulectomy, Fistulotomy, Perianal abscess

INTRODUCTION

Perianal fistulae are abnormal communications between the anal canal and the perianal skin. Fistula in-ano (FIA) is a disease that has been recognized since early times, but in spite of detailed early descriptions, our understanding of its pathogenesis is still unclear. The current consensus of an underlying infection of anal glands was first proposed by Herman and Desfosses in 1880 [1], and subsequently reinforced by other workers [2–4]. Since then, various clinicopathological aspects of the disease have been studied [5–8]. Perianal fistulae account for a substantial discomfort and morbidity to the patient and although many fistulae are easily recognized and treated, others can be complex and difficult to treat. The aim of this paper is to study etio-pathogenesis and clinical presentation of fistula-in-ano.

MATERIALS AND METHODS

This is a prospective study conducted at the department of General Surgery, Medical College and Hospital, Kolkata during January 2016-june 2017. A number of 50 patients were selected who were diagnosed with fistula-in-ano admitted in Medical College and Hospital, Kolkata during the study period. Data related to the objectives of the study were collected.

Inclusion criteria:- The patients who were clinically diagnosed as fistula-in-ano and admitted to the surgical wards in Medical college and Hospital, Kolkata were included in this study.

Exclusion criteria:- 1. Patients who present with fistula in ano and are known cases of ulcerative colitis, Crohn's disease, carcinoma of rectum, active abdominal tuberculosis and radiation injury. 2. Patients with perianal injuries.

The diagnosis of the fistula-in-ano mainly depends on clinical examination. The selected patients are subjected to pathological, biochemical and radiological investigations and treated with fistulectomy and fistulotomy.

RESULTS

In our study of 50 patients, the age of patients varies from 9 years to 65 yrs. Maximum number of patients were in the age group 31-60 years i.e. 31 patients (62%).

TABLE 1 AGE DISTRIBUTION

AGE (IN YEARS)	NO. OF PATIENTS	PERCENTAGES (%)
<11	1	2
11-30	16	32
31-60	31	62
>60	2	4

In our study of 50 patients there were 47 (94%) male patients, 3(6%) female patients indicating that the disease is more common in male with a ratio of male to female 15.66:1 as shown in table 2.

TABLE 2 SEX INCIDENCE

SEX	NO OF PATIENTS	PERCENTAGES(%)
MALE	47	94
FEMALE	3	6

In the present study the commonest symptom is discharge, in all patients (100%), pruritus is present in 31(62%) patients, pain in 26 (52%) patients. Swelling was present in 20 (40%) of patients. The commonest signs are presence of external opening in all patients (100%), internal opening also in all patients (100%), Bleeding per rectum was reported in 4 patients (8%) as depicted in Table 3.

TABLE 3 SYMPTOMS AND SIGNS

SYMPTOMS AND SIGNS	NO OF PATIENTS	PERCENTAGES(%)
PAIN	26	52.0
DISCHARGE	50	100.0
SWELLING	20	40.0
PRURITUS	31	62.0
EXTERNAL OPENING	50	100.0
INTERNAL OPENING	50	100.0
BLEEDING PER RECTUM	4	8.0

Out of 50 cases 41 patients(82%) had low anal fistula, 2 patients (4%) had high anal fistula, 6 patients(12%) had subcutaneous and 1 patient (2%) had submucous fistula.

TABLE 4 STANDARD CLASSIFICATION

TYPE	NO OF PATIENTS	PERCENTAGES(%)
SUBCUTANEOUS	6	12
LOW ANAL	41	82
HIGH ANAL	2	4
SUBMUCOSAL	1	2

Out of 50 cases 40(80%) cases had the posterior, 5(10%) cases has anterior and 5(10%) cases had lateral internal opening as depicted in Table 5.

TABLE 5 DISTRIBUTION OF ANAL FISTULA AROUND ANAL CIRCUMFERENCE

RELATION TO ANAL AXIS	NO OF PATIENTS	PERCENTAGES
ANTERIOR	5	10
POSTERIOR	40	80
LATERAL	5	10

Many associated conditions along with fistula-in-ano were noted, Commonest condition was anorectal abscess (burst opened or surgically drained) Which was found in 15(30%) cases, Fissure was found in 2 (4%) cases, hemorrhoids was found in 2(4%) cases. Pulmonary tuberculosis was found in 1(2%) case, as shown in Table 6.

TABLE 6 ASSOCIATED CONDITIONS

TYPE	NO OF PATIENTS	PERCENTAGES(%)
FISSURE	2	4
PULMONARY TB	1	2
HAEMORRHOIDS	2	4
ANORECTAL ABSCESS	15	30
NONE	30	60

Surgically fit 50 cases who were fulfilling the inclusion criteria were treated with fistulectomy (35 cases) and fistulotomy (15cases).

TABLE 7 TREATMENT

TYPE OF OPERATION	NO PATIENTS	PERCENTAGES(%)
FISTULECTOMY	35	70
FISTULOTOMY	15	30

Most of the cases healed within 4-5 weeks (25 cases) but some cases took even 7-8 weeks to heal as depicted in Table 8.

TABLE 8 TIME TAKEN TO HEAL

TIME	NO OF PATIENTS	PERCENTAGES(%)
3 WEEKS	11	22
4 WEEKS	12	24
5 WEEKS	13	26
>5 WEEKS	14	28

Out of 50 cases, fistulectomy was done in 35 cases, fistulotomy in 15 cases and the operated specimen was sent for histopathological examination (HPE). All cases were found to be due to nonspecific inflammation and none were of tubercular aetiology as depicted in Table-9.

TABLE 9 HISTOPATHOLOGICAL REPORT

HPE REPORT	NO OF PATIENTS
NON SPECIFIC INFLAMMATION	50
TUBERCULOSIS	0

DISCUSSION

The principles of anal fistula surgery are to eliminate the fistula, prevent recurrence and preserve sphincter function. Success is usually determined by identification of the primary opening and dividing the least amount of sphincter muscle possible. There is a male predominance in reported series[9]. Kim Jw et al. reported the male: female ratio of 4.6:1 in korea[10]. Most patients with anal fistula present in the third or fourth decade of life [11] and anal fistula cases were uncommon after the age of 60 years. In our study also there is a male predominance with a ratio of 15.6:1. Most of the patients in our study present between the 31-60 yrs. A patient with a fistula-in-ano often recounts a history of an abscess, drained either surgically or spontaneously. Patient may complain of discharge, pain with defecation and bleeding per rectum. Vasilevsky and Gordon[12] recorded a history of discharge in 90% and pain in 42%, a recurrent perianal swelling in 22%, and pruritus in 38%. In our study, a history of discharge was in 100% and pain in 52%, a recurrent perianal swelling in 40%, bleeding in 8% and pruritus in 62% of patients. Associated fissure in ano was recorded in 4% of patients and hemorrhoids in 8% of patients, almost nearer to their study. Parks and Stitz [13] demonstrated that hospital stay and healing times was much longer in patients treated for Transsphincteric and suprasphincteric (8-10wks) as compared with those treated for an intershphincteric fistula (3-4wks). In our study also the suprasphincteric anal fistulas took 8-10 weeks and intersphincteric fistula 2-4 weeks to heal, matches with their study. In our study we found that all cases showed chronic non-specific inflammation in the histopathological report and none showed koch's infection as compared to Shukla et al[14]. study in which, 19 patients(15.6%) out of 122 patients operated for fistula in ano, showed Koch's infection in the histopathological report. In our study the post- op discharge stopped around 21-35 days in most (56%) of the patients while post op discharge stopped in the same period in 16% and 18% of cases in khurane et al. and Dashpande et al. study respectively . This was due to faster healing and proper hygiene maintained by our patients.

CONCLUSION

Our study included 50 patients who were diagnosed with fistula-in-ano, who underwent surgical intervention. We conclude that, the previously burst open or surgically drained perianal abscess is the main etiological factor for fistula-in-ano. Nonspecific inflammation is the predominant histopathology report. Tuberculosis was not detected in the histopathological examination (HPE) in any of our fifty cases. This finding is not at par with the other previous studies. It was found that fistula- in- ano most commonly affects adults in 4th decade, which is more common in males compared to females. In the present series of fifty cases of fistula-in-ano, most of the fistulae were the sequelae of perianal abscess. The fistulae were classified into 4 groups. Subcutaneous, Submucous, low anal and high anal with low anal variety being the most common type (82%). All the patients presented with discharge of pus from the perianal region.

REFERENCES

1. Fitzgerald RJ, Harding B, Ryan W. Fistula-in-ano in childhood: a congenital etiology. J Pediatir Surg 1985;20:80-1.
2. Eisenhammer S. Internal anal sphincter and anorectal abscess. Surg Gynecol Obstet 1956;103:501-6.
3. Parks AG. Pathogenesis and treatment of fistula-in-ano. Br Med J 1961;5224:463-9.
4. Harkins HN. Correlation of the newer knowledge of surgical anatomy of the anorectum. Dis Colon Rectum 1965;8:154-7.
5. Parks AG, Stitz RW. The treatment of high fistula-in-ano. Dis Colon Rectum 1976;19:487-99.
6. Goldberg SM, Parks AG, Goligher JC, et al. Fistula-in-ano. Dis Colon Rectum 1976;19:487-528.
7. Parks AG, Gordon PH, Hardcstle JD. A classification of fistula-in-ano. Br J Surg 1976;63:1-12.
8. Marks CG, Ritchie JK. Anal fistulas at St. Mark's Hospital. Br J Surg 1977;64:84-91.
9. Sainio P, Fistula-in-ano in a defined population incidence and epidemiological aspects. Ann chir gynoecol 1984;73:219-224
10. Kim JW, Kwon SW, Son SW, Ahn DH, Lec KP: Comporative Review of perional sinus and fistula in ano. J koreon Soc Coloproctol, 2000;16(1):7-11
11. Morks CG, Ritchie JK: Anal fistulas at St. Mary's Hospital. Br J Surg., 1977;64(2):84-91
12. Vasilevsky CA, Gordon PH .Results of treatment of Fistula-in-ano. Diseases of the colon and rectum. 1985;28:225-31
13. Parks AG, Stitz RW: The treatment of high fistula in ano Disease of the colon and Rectum, 1976;19:487-499.
14. Shukla H.S,Gupta SC,Singh.G ;Tubercular fistula in ano,1988;10.1002/bjs.