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A Clinical Study of Etiology and Management of Fistula- In-Ano in a Tertiary Care Hospital

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Abstract

***Aim**: The objective of the present study was to find the etiology and management of fistula-in-ano in a tertiary care hospital. **Methods**: This prospective cross-sectional study was done in the Department of General Surgery Prathima Institute of Medical Sciences, Naganoor, Karimnagar. Clinical examination including per rectal and proctoscopic was done in required patients. All the patients were processed by routine investigations, ECG, Chest, X-Ray, etc done prior to surgery. Fistulogram was done in selected cases. Patients were treated with fistulectomy or fistulotomy for fistulae and followed up for a period of 3 months to 1 year. **Results**: Out of the 50 patients n=35 (70%) were male and n=15 (30%) were female patients. The low socioeconomic group of patients were n=20 (40%) and middle and upper socioeconomic classes were having n=15 (30%) patients each. In this series 70% of patients were, discharging wound was the presenting the complaint. 20% of patients with pain and swelling around the anal region, past history of peri anal abscess obtained from 80% of cases from this fact we note that discharging wound and pain, and past history of peri anal abscess are the commonest mode of presentation in the majority of patients. In the study of fistula-in-ano, n=37 (74%) of patients underwent Fistulectomy, another n=10 (20%) of patients Fistulotomy and another n=3(6%) of patients Fistulectomy with lateral sphinctorotomy. **Conclusion**: Simple low-lying anal fistulas are common with male preponderance. Both fistulotomy and fistulectomy treatments provided good outcomes. However, fistulotomy has advantage of being done in shorter operative times, less post-operative pain and quicker wound healing.*

***Keywords**: Fistula- In-Ano, Surgical management, Tertiary care hospital*

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Introduction

Fistula-in-ano is a very common presentation in the surgical clinics. It is a chronic disease and can be treated with surgical intervention. [1] In 90% of these cases are end results of crypto-glandular infections. It is not a life threatening disease but causes lot of inconvenience to lead a normal life. Otherwise it forms abscesses causing troublesome pain. Although it is common disease in human beings, the conservative management does not provide a permanent relief in these cases. The history given by the patient and careful general physical examination with a good source of light, a proctoscope and a meticulous digital rectal examination can diagnostic. The majority of these infections are acute and significant minority is contributed by chronic, low grade infections, hence pain being to varying etiologies. The common pathogenesis however is the bursting open of an acute or inadequately treated Ano-rectal abscess into the peri-anal skin. [2]

Despite the easy diagnosis, establishing a cure is problematic on two accounts, firstly, many patients tend to let their ailment nag them rather than being subject to examination, mostly

owning to the site of affection of the disease. The most important second factor is that a significant percent of these diseases persist or recur when the right modality of surgery is not 2 adopted or when the post operative care is inadequate. So these conditions affect the young and middle aged persons causing loss of valuable productive man hours. With the recent clear awareness of the relations of the fistula with anal sphincters, the surgical treatment has become easier. The pioneer authorities of anal surgery like Parks, Milligan and Morgan have provided lot of useful information which has lead to safe treatments. [3] Usually the fistula-in-ano excised and kept open to heal by granulation tissue. This procedure takes long period to heal completely. In this work this commonest disease is selected to study its evidence, etiology, signs, symptoms, pathogenesis and management and follow up of the patient for a period of 6 months after surgery.

Materials and Methods

This prospective cross sectional study was done in the Department of General Surgery Prathima Institute Of Medical Sciences, Naganoor, Karimnagar. Clinically diagnosed, fistulas in ano 50 cases were selected randomly using the closed envelope method and studied. Clinical history was obtained in all the patients. Clinical examination including per rectal and proctoscopic was done in required patients. All the patients were processed by routine investigations, ECG, Chest, X-Ray, etc done prior to surgery. Fistulogram was done in selected cases. Patients were treated with fistulectomy or fistulotomy for fistulae and followed up for a period of 3 months to 1 year. **Inclusion criteria:** 1) Fistula-in-ano presenting with persistent discharge causing pruritis and discomfort 2) patients above 18 years. **Exclusion criteria:** 1) Patients who present with fistula-in-ano who are Known cases of ulcerative colitis, crohn's disease, carcinoma of rectum, active abdominal tuberculosis, and radiation therapy 2) patients with perianal injuries. A Standard surgical procedure of Fistulectomy was performed in all the patients and the patients were followed for 12 months post surgery for complications.

Results

N=50 cases of fistula-in-ano were selected randomly using closed envelope method and studied in detail the following results were obtained.

In this present series, n=10 (20%) were belonging to age group 20 -25 years, n=5 (10%) belonging to age group 26-30 years. N=12(24%) were in the age group 31-35, n=10 (20%) were in age group 36 -40 and n=7 (14%) in age group 41 -45 and n=3 each in age groups 46 -50 and > 50 years shown in table 1. Out of the 50 patients n=35 (70%) were male and n=15 (30%) were female patients. The low socioeconomic group of patients were n=20 (40%) and middle and upper socioeconomic classes were having n=15 (30%) patients each (table2).

Table -1 Age wise incidence of fistula-in-ano

Age in years	No of patients	%
20 – 25	10	20
26 – 30	05	10
31 – 35	12	24
36 – 40	10	20
41 – 45	07	14
46 - 50	03	6
>51	03	6

Table-2: The socioeconomic status of the patients in the study

Socio-economic status	No.	%
Low socio-economic class	20	40
Middle socio-economic class	15	30
Upper socio-economic class	15	30

In this series 70% of patients were, discharging wound was the presenting the complaint. 20% of patients with pain and swelling around the anal region, past history of peri anal abscess obtained from 80% of cases from this facts we note that discharging wound and pain, and past history of peri anal abscess are the commonest mode of presentation in the majority of patients (table 3). In the study of 50 cases of fistula-in-ano, n=40 (80%) of them had only one external opening, while n=7 (14%) had 2 external opening and another n=3(6%) had more than 2 openings. Hence fistula-in-ano with a single external opening is commonest in occurrence.

Table-3: Modes of presentation

Mode of presentation	No.	%
Discharge	35	70%
Pain and swelling	10	20%
Peri anal irritation	5	10%
Past H/o peri anal abscess	40	80%

In the study of fistula-in-ano, n=37 (74%) of patients underwent Fistulectomy, another n=10 (20%) of patients Fistulotomy and another n=3(6%) of patients Fistulectomy with lateral sphinctorotomy. In this study, series of patients were followed for a period of 3 months to 1 year, 4 patients had come with recurrence of fistula in their 8th and 11th month of follow up those who underwent fistulotomy with multiple openings. A low level fistula an average heals by 6-8 weeks where as a high level fistula may take as long as 3 – 6 months to heal.

Table-4 Types of surgical management of cases

Types of surgical treatment	No. of patients	Percentage
Fistulectomy	37	74%
Fistulotomy	10	20%
Fistulectomy with lateral sphinctorotomy	3	6%

Discussion

Fistula-in-ano causes considerable inconvenience to the patient. The etiology is believed to be from infection of an anal gland. The surgical challenges exists as in surgeries to perineum can cause damage to anal sphincters can lead to incontinence or incomplete removal leading to recurrence. A total of 50 patients were identified and treated during the study period. The most common age group involved was 31 -35 years (24%) and in similar studies by Jethava J et al; [4] R Siddharth et al; [5] and SP Tated et al; [6] have found the most common age group between 31-40 years which is in agreement with the results of the present study. In the present study the number of male patients were n=35 and female patients were n=15 the ratio between male to female was 7:3 showing male predominance in the occurrence of fistula-in-ano. Mogahed M et al; [7] showed the ratio 8:1 other studies have shown the ratio was highest in the study of Chalya P et al; [8] which was 12.5:1.6. In the present study 70% of the patients were having discharge, 20% were having pain and swelling, 10% were with perianal irritation and history of perianal abscess was found in 80% of the patients. SK Gupta et al; [9] have found 100% of the patients of anal fistula were presented with perianal discharge. SP Tated et al; [6] have found 93.82% patients had discharge, 75.30% patients had history of peri-anal abscess, 97.53% patients had peri-anal swelling and 29.62% patients had pain in perineal region. In this study, 88% of patients had low level of fistula and another 12% of patients had an internal opening situated above ano rectal ring. In this study, 74% of patients underwent fistulectomy and another 20% of patients underwent fistulotomy, 6% of fistulectomy with lateral sphincterotomy. SK Gupta et al; [9] have found low level fistula were more common than the high level fistula an observation similar to this study. In the present study we found 74% of patients under went fistulectomy and 20% underwent Fistulotomy and 6% underwent Fistulectomy with lateral sphinctorotomy. Jethva J et al; [4] in their study underwent fistulectomy surgery was 12%, 60% patients have undergone fistulotomy surgery and 28% patients have undergone Seton thread treatment. Rosa G et al; [10] 28.1% patients have undergone fistulectomy, 70.4% patients have undergone fistulotomy and 1.5% patients have undergone Seton thread treatment. Kim JW et al; [11] in their study 23.5% patients had fistulectomy, 64.7% patients had fistulotomy and 11.8% patients had Seton thread treatment. The frequency of post-operative infection was n=3 cases out of 50 cases in which 2 were treated with fistulectomy and 1 cases was of fistulotomy.

Conclusion

Within the limitations of the present study it can be concluded that simple low lying anal fistula are common with male preponderance. Both fistulotomy and fistulectomy treatments provided good outcomes. However, fistulotomy has advantage of being done in shorter operative times, less post-operative pain and quicker wound healing.

Conflict of Interest: *None declared*
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