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ASSESSMENT OF CLINICAL PROFILE AND OUTCOME OF FISTULA IN ANO CASES AT TERTIARY CARE CENTER

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ABSTRACT

Background: Fistula-in- Ano is characterized by an abnormal hollow tract which is lined by granulation tissue. Fistula-in- Anohas two openings one which is called, a primary one which opens inside the anal canal and a secondary one which opens in the perianal skin. **Material & Methods**: The calculated sample size was 54, all the patients above 16 years of age with specific anorectal lesion with an external opening, patients with a history of perianal discharge or any past history of recurrent attacks perianal abscess and its treatment, all these patients were included in the study. Clearance from Institutional Ethics Committee was taken before the start of the study. **Results:** The most common clinical presentation found was perianal discharge present in 75.9% patients followed by perianal pain in 68.5% patients. 38.8% of patients had a past history of perianal abscess and perianal swelling and irritation found in 18.5% and 12.9% patients respectively. 74.1% of patients had a posterior opening and 25.9% patient had an anterior opening of the fistula. Internal opening below anorectal ring i.e. low type of fistula found in 83.3% patients and 16.6% had the high type of fistula. The single opening of fistula in ano present in 68.5% of patients and multiple openings were present in 31.4% of patients. Out of the total study participants in 46 patients (85.2%), complete healing of fistula in ano was observed. Among the 8 patients, (14.8%) recurrence of fistula in ano was reported. **Conclusion:** We concluded from the present study that the fistula in ano is a common disease but with serious complications and morbidity. Proper preoperative evaluation after the operative procedure is essential to counter any recurrence and to prevent complications.

Key words: Fistula in ano, Fistulectomy, Fistulotomy, Seton placement.

INTRODUCTION

Fistula-in- Ano is characterized by an abnormal hollow tract which is lined by granulation tissue. Fistula-in- Anohas two openings one which is called, a primary one which opens inside the anal canal and a secondary one which opens in the perianal skin **(1)**. In somecontexts, it is seen that the secondary tracts can be multiple and may extend up to the primary opening. Suppurative infections of the anal canal glands are the most common cause of anal fistulas near the dentate line. The local anatomy has an important role in determining the path of a fistula, which was usually seen tracking at fascial and fatty planes **(2)**.

Fistula in Ano is difficult to cure but very easy to diagnose diseases, however, the patients present very late which leads to morbidity burden among patients. The most important reason for the delay in consultation in most ofthe cases is the anatomical location of a fistula which leads to shyness in the patient for consulting a physician **(3)**. Fistula in Ano is characterized by a painless disease, discharge is usually seen as temporarily finding, and however recurrent abscesses were seen frequently. Immediate relief from Pain is reported when the abscess ruptures **(4)**. Nowadays due advancement in medical science, the treatment of fistula in Ano is become very easy and cost effective with less hospital stay **(5)**.

The digital rectal examination is the most common diagnostic procedure done for the patients of suspected fistula in ano **(6)**. Various other routinely conducted diagnostic procedures for fistula- inano are Colonoscopy, Sigmoidoscopy, Fistulography, Fistuloscopy, Endo anal/rectal ultrasonography, Computerized Tomography Scan (CT scan), Magnetic Resonance Imaging (MRI), barium enema/small bowel series **(7)**. However, along with all the above investigations, a thorough physical examination is essential. Various studies on fistula-in- ano are available but data is very less on the prevalence, incidence and clinical features for the study area of the present study. Hence we conducted the present study to find out the spectrum of clinical presentations and various outcomes among patients of fistula in ano.

MATERIALS & METHODS

The present prospective observational study was conducted at the department of general surgery of our tertiary care hospital. The sample size was calculated from the epi info software version 7.0 at an acceptable margin of error of 5% and a confidence interval of 95% with the 95% power of the study. The calculated sample size was 54 which also include loss to follow up cases. Since there is no loss to follow up cases in the present study, hence a total number of 54 patients were included in the study by simple random sampling over a period of one year. All the patients above 16 years of age with specific anorectal lesion with an external opening, patients with history of perianal discharge or discharge from external opening, seropurulent or fecal matter leading to discomfort and pruritus, or any past history of recurrent attacks perianal abscess and its treatment, fistula secondary to a foreign body introduction, all these patients were included in the study. Clearance from Institutional Ethics Committee was taken before the start of the study. Patients who had active abdominal tuberculosis, Crohn's disease, carcinoma of the rectum and previous history of radiation therapy were excluded from the present study. Data were entered in the MS office 2010 spreadsheet and Epi Info v7. Data analysis was carried out using SPSS v22. Qualitative data were expressed as a percentage (%) and Pearson’s chi-square test was used to find out statistical differences between the study groups and sensitivity, specificity, positive predictive value, and negative predictive value were calculated. If the expected cell count was < 5 in more than 20% of the cells then Fisher’s exact test was used. All tests were done at alpha (level significance) of 5%; means a significant association present if the p-value was less than 0.05.

RESULTS

In the present study, we studied 54 patients with fistula in ano and data was recorded. In this study we found that majority of cases (38%) were in the age group of 41-50 followed by 29% cases that were below 30 years of the age, followed by 21% of cases who were in the age group of 31-40 and lastly 12% of the cases were above 50 years of the age. Out of the total study participants, 84% were male and 16 % were female. Study participants from the high socioeconomic class were 31% and 69% were from low socioeconomic class. The most common clinical presentation found was perianal discharge present in 75.9% patients followed by perianal pain in 68.5% patients. 38.8% of patients had a past history of perianal abscess and perianal swelling and irritation found in 18.5% and 12.9% patients respectively. 74.1% of patients had a posterior opening and 25.9% patient had an anterior opening of the fistula. Internal opening below anorectal ring i.e. low type of fistula found in 83.3% patients and 16.6% had the high type

of fistula. The single opening of fistula in ano present in 68.5% of patients and multiple openings were parents in 31.4% of patients. (Table 1)

Table 1: Distribution of clinical presentation of study participants.

Modes of clinical presentation	Number of cases
Discharge	41 (75.9%)
Pain	37 (68.5%)
Swelling	10 (18.5%)
Perianal irritation	7 (12.9%)
Past h/o perianal abscess	21 (38.8%)
Anterior situation of external opening	14 (25.9%)
Posterior situation of external opening	40 (74.1%)
High level of fistula	9 (16.6%)
Low level of fistula	45 (83.3%)
No. of opening = 1	37(68.5%)
No. of opening ≥ 2	17 (31.4%)

In the present study the most commonly conducted surgical procedure was fistulectomy which was performed in 40 patients (74.1%), which was followed by fistulotomy performed in 8 patients (14.8 %), fistulectomy with primary closure was carried out for two patients (3.7%), seton placement procedure was conducted for only one patient (1.8%) and Curettage of fistulous tract surgical procedure was performed in 3 patients (5.5%). (Table 2)

Table 2: Distribution on the basis of surgical treatment of study participants.

Types of surgical treatment	No. of patients
Fistulectomy	40 (74.1%)
Fistulotomy	8 (14.8%)
Fistulectomy with primary closure	2 (3.7 %)
Seton placement	1(1.8%)
Curettage of fistulous tract	3(5.5%)

In the present study on the follow up for the outcome of the surgical procedure it was found that out of the total study participants in 46 patients (85.2%), complete healing of fistula in ano was observed. Among the 8 patients, (14.8%) recurrence of fistula in ano was reported. (Table 3)

Table 3: Distribution on the basis of follow up the outcome of study participants.

Follow up the outcome of fistula in ano	No. of patients
Complete healing	46 (85.2%)
Recurrence	8 (14.8%)

DISCUSSION

In the present study, we studied 54 patients with fistula in ano and data was recorded. In this study we found that majority of cases (38%) were in the age group of 41-50 followed by 29% cases who were below 30 years of the age, followed by 21% of cases who were in the age group of 31-40 and lastly 12% of the cases were above 50 years of the age. Out of the total study participants, 84% were male and 16 % were female. Study participants from the high socioeconomic class were 31% and 69% were from low socioeconomic class. A similar study was conducted by Sidhdharth R et al in 2015, they include various parameters in their study such as age, sex, Socio-economic Status, no. of external openings, level of fistulae, the situation of external openings, association with a fissure in ano, type of surgical treatment, postoperative complication etc. They reported that the most common age group presentation among 40% participants was 30-40 years, there was male preponderance in the study sample with the male to female sex ratio was 3:1. The disease was more commonly present among patients of lowersocioeconomic class which was 80% of the total sample population **(8).** A similar study conducted by Hamadani A et al among 148 patients of fistula in ano for the study of postoperative recurrence found that the mean age of study participants was 43.6 years and among that 105 were male and 43 were females. They found that age more than 40 years is an associated risk factor for recurrence of fistula in ano**(9)**.

In the present study, the most common clinical presentation found was perianal discharge present in 75.9% patients followed by perianal pain in 68.5% patients. 38.8% of patients had a past history of perianal abscess and perianal swelling and irritation found in 18.5% and 12.9% patients respectively. 74.1% patients had a posterior opening and 25.9% patient had an anterior opening of the fistula. Internal

opening below ano-rectal ring i.e. low type of fistula found in 83.3% patients and 16.6% had the high type of fistula. The single opening of fistula in ano present in 68.5% of patients and multiple openings were presents in 31.4% of patients. A similar study conducted by Kumar V et al et al found that the majority of cases (62%) was in the age group of 31-60 years. The male to female ratio was 5:1. Among 68% of patients, there was a past history of fistula, the majority of fistula in their study were low anal accounts for 74% of cases. Among 66% of cases the opening of fistula was external **(10)**. Another study conducted by Sainio P et al found in their study that high recurrence rate of fistula in ano. Among the majority of patients, there was a past history of fistula, the majority of fistula in their study were low anal accounts for 55% of cases **(11)**.

In the present study the most commonly conducted surgical procedure was fistulectomy which was performed in 40 patients (74.1%), which was followed by fistulotomy performed in 8 patients (14.8 %), fistulectomy with primary closure was carried out for two patients (3.7%), seton placement procedure was conducted for only one patient (1.8%) and Curettage of fistulous tract surgical procedure was performed in 3 patients (5.5%). A similar study conducted by Shruti Y et al among 50 patients of fistula in ano for the study of treatment and recurrence found that the Fistulectomy was done in 39 patients (78%) and fistulotomy was done in 7 patients (14 %) while fistulectomy with primary closure was done in 1 patient (2%) and lastly seton placement was performed in 2 patients (4%) **(12)**. A similar study conducted by Sushrut P et al among 81 patients of fistula in ano for the study of treatment and recurrence found that majority of study participants i.e. 74.07% were treated by fistulectomy and 9.87% patients were treated by fistulotomy while 16.04% patients were treated by seton thread placement **(13)**.

In the present study on the follow up for the outcome of the surgical procedure it was found that out of the total study participants in 46 patients (85.2%), complete healing of fistula in ano was observed. Among the 8 patients, (14.8%) recurrence of fistula in ano was reported. A similar study conducted by Ashish K et al among 50 patients of fistula in ano for the study of treatment and recurrence found that recurrences were reported among 4 (8%) cases after Fistulotomy procedure while there was nil recurrence was observed among patient treated by fistulectomy and setont placement **(14)**.

CONCLUSION

We concluded from the present study that the fistula in ano is a common disease but with serious complications and morbidity. Proper preoperative evaluation after the operative procedure is essential to counter any recurrence and to prevent complications. Hence early intervention and regular follow up is the appropriate line of management of fistula in ano. The prognosis is very good if properly treated, hence proper treatment protocols are essential to be established.

REFERENCES

1. Phinehas E, Parimala M, Ravishankar J. A study on clinicopathology of fistula in ano. 2018;5(10):3372–6.
2. Sheikh P, Baakza A. Management of Fistula-in-Ano-The Current Evidence. Indian J Surg . 2014 Dec;76(6):482–6.
3. Tabry H, Farrands PA. Update on anal fistulae: surgical perspectives for the gastroenterologist. Can J Gastroenterol . 2011 Dec;25(12):675–80.
4. Abou-Zeid AA. Anal fistula: intraoperative difficulties and unexpected findings. World J Gastroenterol . 2011 Jul 28;17(28):3272–6.
5. Romaniszyn M, Walega P. Video-Assisted Anal Fistula Treatment: Pros and Cons of This Minimally Invasive Method for Treatment of Perianal Fistulas. Gastroenterol Res Pract . 2017 Jun 7;2017:1–7.
6. Bakari AA, Ali N, Gadam IA, Gali BM, Tahir C, Yawe K, et al. Fistula-in-Ano Complicated by Fournier's Gangrene Our Experience in North-Eastern Region of Nigeria. Niger J Surg Off Publ Niger Surg Res Soc . 2013 Jul;19(2):56–60.
7. Torkzad MR, Karlbom U. MRI for assessment of anal fistula. Insights Imaging . 2010 May [cited 2018 Oct 14];1(2):62–71.
8. Siddharth R, G AK, S S. CLINICAL STUDY OF FISTULA IN ANO. J Evol Med Dent Sci . 2015 Oct 26;4(86):15082–7.
9. Hamadani A, Haigh PI, Liu I-LA, Abbas MA. Who Is At Risk for Developing Chronic Anal Fistula or Recurrent Anal Sepsis After Initial Perianal Abscess? Dis Colon Rectum . 2009 Feb;52(2):217–21.

10. M VKH, Chetan PR, Naveen PR. A Clinico-Pathological Study of Fistula-in-ano. 2015;3:1471–6.
11. Sainio P, Husa A. Fistula-in-ano. Clinical features and long-term results of surgery in 199 adults. Acta Chir Scand . 1985;151(2):169–76.
12. Yadu S, Toppo A. Clinical presentation and outcome of fistula in ano cases. 2018;5(9):3006–10.
13. Tated SP, Sharma K, Hatkar AA. Clinical study of various modalities of treatment for fistula in ano at a tertiary care hospital. 2017;4(11):3670–4.
14. Kharadi A, Patel K, Varikoo V. A descriptive analysis of management of fistula-in-ano. Int Surg J . 2016;3(2):683–6.