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Original Research Article

Clinical study of various modalities of treatment for fistula in ano at a tertiary care hospital

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ABSTRACT

Background: Despite the ease of diagnosis, establishing a cure is problematic as many patients tend to let their disease nag them rather than treatment. Also, due to site of this disease many patients delay the treatment. Objectives was to study the various etiologies of fistula in ano, to study the different modes of clinical presentations of these fistulae-in-ano, efficacy of different modalities of surgical approach with reference to recurrence of fistulae.
Methods: Hospital based cross sectional descriptive study was carried out among 81 eligible patients of fistula in ano. Local Examination, Per Rectal Examination, Proctoscopy was done to assess the external opening, internal opening and fistula tract. Patients were advised Fistulogram and sent to Department of radiology on outpatient basis for the same. Patients with fistulography report were admitted and surgical treatment was planned according to the fistulography report. Appropriate surgery was planned. Specimens were sent to histopathology.
Results: Commonest age of presentation was between 30-40 years. Males were more commonly affected. Swelling in perineal region was commonest mode of presentation. Fistula with only one opening was around 85.18%. Anteriorly situated fistula was around 14.81%. Low level fistula was more common. Majority of patients i.e. 74.07% underwent fistulectomy. 9.87% patients underwent fistulotomy. 16.04% patients underwent setonthresd placement. Three Patients developed recurrence.
Conclusions: Fistulotomy is associated with slightly high recurrence but low chances of anal incontinence as compared to fistulectomy.

Keywords: Anal incontinence, Fistula in ano, Recurrence

INTRODUCTION

Fistula in ano is one disease which is easy to diagnose. But difficult to cure as patients report very late phase of the disease and it leads to problems. This delay in consulting the doctor is due to the fact that patients feel shy to report the condition because of its anatomical location. If the right kind of surgery is not performed, the disease tends to recur. It can also recur due to negligence in post-operative care.[1] With advancement in modern medicine, management of fistula in ano became feasible and easy. The management technique remains same. That is to use antibiotics and subject to drainage. But continence may not be preserved in many cases. Studies are on to achieve an optimal treatment which attains both leading to improvement in patient care.[2]

Anyone can be affected by fistula in ano and thus globally present an important health problem. Risk is always associated with operation. The major and common complications are fecal incontinence and recurrence. Experienced hands are required to deal with post-operative complications. The cases of fistula which pass through secondary tracts, supralevator fistula and

external sphincter pose challenge to the treating surgeons. Fecal incontinence and recurrence can occur with these patients.[3]

Fistulotomy and fistulectomy are conventional operations of choice for patients having fistula which is low level. The fistula tract is completely excised in fistulectomy. This reduces the risk of missing secondary tracts. It also provides tissue specimen for histopathological examination. Another surgery is fistulotomy in which the surgeon opens the fistulous tract. This leaves relatively small amount of wound. This leads to fast healing. Ksharsutra was the procedure used by Sushrut (The Great India Surgeon). Its application causes simultaneous cutting and healing of the wound and allows better wound drainage.[4]

The basic principles of management are control of infection, properly closing the fistula and appropriately maintaining the continence. Studies are going on to develop newer techniques for optimum patient satisfaction.[5] We conducted our study with an aim to study the various etiologies of fistula in Ano. We also wanted to know the various forms of presentations of this fistula in ano. We also studied the efficacy of different modalities of surgical approach and its effects regarding recurrence and anal incontinence following surgery.

METHODS

Study place

This study was conducted in the department of General Surgery SRTR Government Medical College, Ambejogai. Study period: July 2016 to April 2017. Study design: hospital based cross sectional descriptive study

Inclusion criteria

All Male and female patients of all age groups having a clinical diagnosis of fistula in ano presented to surgery OPD within the study period of 18 months were included in the study after obtaining an informed written consent from the patients.

Exclusion criteria

Patients with a clinical diagnosis of

- Fissure in Ano
- Piles
- Patients refusal for surgical intervention when the fistula in Ano demonstrated clinically.

Patients were collected by Simple Random Sampling.

Sample Size: All the patients coming to surgery OPD in study duration were included in the study. This study was done with 81 patients of fistula in ano.

Identification details full name of the patient, age in years, sex, religion, caste, address and hospital number of all 81 patients were collected. Eighty-one patients of all age group who gave voluntary written informed consent for participation in the study, presenting with clinical features suggestive of fistula in ano coming to surgery OPD were examined clinically.

A detailed history regarding the onset of symptoms, its duration, progress; associated pain; perineal discharge, fever was noted. Local Examination, Per Rectal Examination, Proctoscopy was done to assess the external opening, internal opening and fistula tract. Patients were advised Fistulogram and sent to Department of radiology on outpatient basis for the same. Patients with fistulography report were admitted and surgical treatment was planned according to the fistulography report.

All routine pre-operative investigations were performed and fitness for surgery was obtained from department of Anesthesia. A written, informed, explained, valid consent was obtained for the operative procedure. Patients were kept nil by mouth since previous night of surgery, operative parts shaved and prepared prior to surgery. Under appropriate anesthesia, with patient in lithotomy position, thorough cleaning and draping of operative part was done. Examination was under anesthesia. Site of External opening, internal opening was noted during Per Rectal Examination. Using a Fistulotomy probe direction of tract delineated whether curved or straight. Also, level of fistula, High or Low can be known in relation to that of anorectal ring. Appropriate surgery was planned. Specimens were sent to histopathology.

Histopathological Reports were collected from department of pathology and attached to the patients file. Data collected was tabulated and results and observations noted.

RESULTS

Our study population consists of 81 patients, 67 males and 14 females. Following results were obtained.

Table 1: Age wise distribution of patients of fistula in ano.

Age	Number of patients	Percentage
20-30	17	20.98%
31-40	32	39.50%
41-50	16	19.75%
>51	16	19.75%
Total	81	100%

In this study 39.50% patients were of age group 31-40 years. 20.98% patients were of age group 20-30 years. 19.75% patients were of age group 41-50 years and more than 50 years. It shows that the disease was more common in young age group causing loss of productive

working hours. In this study 82.71% patients were male. 17.28% were females. The disease was more common in males.

Table 2: Sex wise distribution of patients of fistula in ano.

Sex	Number of patients	Percentage
Male	67	82.72%
Female	14	17.28%
Total	81	100%

Table 3: Distribution of patients of fistula in Ano according to mode of presentation.

Mode of presentation	Number of patients	Percentage
Perineal discharge	76	93.82%
Past history of perineal abscess	61	75.30%
Pain	24	29.62%
Swelling	79	97.53%
Total	81	296.27*

*Multiple responses.

In this series, 93.82% patients presented with discharge in perineal region. 75.30% patients presented with past history of perinea abscess. 29.62% patients presented with pain in perinea region. 97.53% patients presented with swelling in perinea region. This being a commonest mode of presentation.

So, swelling in perineal region along with discharge is the common presentation of patients of anal fistula.

Table 4: Distribution of patients of fistula in ano according to number of external openings.

Number of external openings	Number of patients	Percentage
1	69	85.19%
>1	12	14.81%
Total	81	100%

85.18% patients presented with only one opening in perineal region. 14.81% patients presented with more than one opening in perineal region. So, Patients with a single external opening were common.

Table 5: Distribution of patients of fistula in ano according to situation of external opening.

Situation of external openings	Number of patients	Percentage
Anterior	12	14.82%
Posterior	69	85.18%
Total	81	100%

14.81% patients presented with opening anteriorly. 85.18% patients presented with openings posteriorly. So, posterior position is more common.

Table 6: Distribution of patients of fistula in ano according to level of fistula.

Level of fistula	Number of patients	Percentage
Low	68	83.95%
High	13	16.05%
Total	81	100%

83.95% patients have a low fistula. This is the most common mode of presentation. 16.04% of patients are having high level of fistula.

Table 7: Types of surgery wise distribution of patients of fistula in ano.

Types of surgery	Number of patients	Percentage
Fistulectomy	60	74.07%
Fistulotomy	8	9.87%
Seton thread	13	16.04%
Total	81	100%

74.07% patients were treated by fistulectomy. 9.87% patients were treated by fistulotomy. 16.04% patients were treated by Seton thread placement.

Table 8: Distribution of patients of fistula in according to post-operative results.

Post-operative results	Number of patients	Percentage
Complete healing	78	96.29%
Recurrence	3	3.70%
Total	81	100%

Fistulectomy was the most common surgery performed. Seton thread was used only in patients having high level fistula.

Table 9: Etiology wise distribution of patients of anal fistula.

Etiology	Number of patients	Percentage
Non- Specific	81	100%
Specific	0	0%

96.29% patients showed complete healing. Only 3.7% of patients showed recurrence. In this study 100% of cases had no any defined etiology. They were nonspecific crypto glandular infections.

DISCUSSION

In the present study, age group most affected was in the range of 31 to 40 years. This finding is not in accordance

with Jethva J et al.[5] In this study age group most affected was 20-30 year. As a whole this shows that young age group is most commonly affected by fistula in ano.

It was found that males were more affected than females. In present study the ratio was 4.8:1. The ratio was highest in the study of Chalya P et al which was 12.5:1.[6]

In present study 67 males were affected and 14 females were affected. Mogahed M et al showed this ratio 8:1. While Zuhair Bashir Kamal got a ratio of 15:4 showing male dominance.[7,8]

Sagar Kumar Gupta et al found that 100% of patients of anal fistula presented with perineal discharge.[9] Zuhair Bashir Kamal in his study found that 94.73% patients presented with discharge.[8] About 43.42% patients presented with a history of perineal abscess, 60% patients also had swelling in peri-anal region and 5% patients suffered from pain. In study conducted by Uraiqat A et al 99% patient presented with discharge, 86.04% patients presented with a past history of abscess in peri-anal region, 45% patients had swelling and 5% patients have pain in perineal region.[10] In present study 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.

Patients having a single external opening were more than that of more than one opening. In present Study 85.18 % of patients were having a single opening. 14.81% patients were having more than one opening. This is in accordance with all studies but closer to Jethva J et al.[5]

In present study patients having posteriorly placed external openings exceeds that of the patients having anteriorly placed external openings. This is in accordance to the study conducted by Bhatti et al which states that 33.33% patients had anteriorly placed external opening and 66.66% patients had posteriorly placed external openings.[11]

In present study 14.81% of patients were having anteriorly placed external openings. 85.18% patients were having posteriorly placed external openings.

In present study 83.95% patients were having low level fistula in ano. This is in accordance with all the Studies but it is more closely related to Sagar Kumar Gupta et al.[9] This shows that patients with low level fistula in Ano are common than that of high level fistula. Jethva J found that 72% patients had low level fistula while 28% patients had high level fistula.[5]

In present study the patients with nonspecific or idiopathic causes were 100%. The findings of Zuhair Bashir Kamal were same as that of present study. Sagar Gupta K et al showed that 96% patients had nonspecific etiology while 4% patients had specific etiology.[8,9] In the study conducted by Malouf A. et al 88% patients showed nonspecific etiology and 12% patients showed specific etiology.[12]

In present study 74.07% undergone fistulectomy, while 9.87% patient's undergone fistulotomy. 16.04% patients have undergone Seton thread treatment. This result is in accordance with Zuhair Bashir Kamal. 8 In the study done by Jethva J et al patients undergone fistulectomy surgery was 12%, 60% patients have undergone fistulotomy surgery and 28% patients have undergone Seton thread treatment.[5] In the study conducted by Rosa G et al 28.1% patients have undergone fistulectomy, 70.4% patients have undergone fistulotomy and 1.5% patients have undergone seton thread treatment.[13] In the study conducted by Kim JW et al 23.5% patients had fistulectomy, 64.7% patients had fistulotomy and 11.8% patients had Seton thread treatment.[14]

In present study 3.7% patients i.e. 3 patients developed recurrence. In a study conducted by Zuhair Bashir Kamal about 6.5% patients developed recurrence in study conducted by Chalya PL et al no patient developed recurrence.[6,7] Thus it shows that recurrence is low and it could be minimum if appropriate modality is adopted.

CONCLUSION

Seton is procedure of choice in high anal fistula. Fistulotomy is associated with slightly high recurrence but low chances of anal incontinence as compared to fistulectomy. Sphincter sparing options continue to evolve and continued review of new techniques is important to give best possible treatment. It is necessary for surgeons to stay updated on new sphincter sparing options so that patients can be given opportunity to a best quality treatment.

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REFERENCES

1. Garcia-Olmo D, Guadalajara H, Rubio-Perez I, Herreros MD, de-la-Quintana P, Garcia-Arranz M. Recurrent anal fistulae: limited surgery supported by stem cells. W J Gastroenterol: WJG. 2015;21(11):3330.
2. Murtaza A. Fistula in Ano- an overview. J Int Med Sci Academy. 2012;25(1):53.
3. EI-Tawil AM. Current management of crypto glandular fistula-in-ano: an introduction. World J Gastroenterol. 2011;17(28):3271.
4. Mishra BS. Bhavamishra's Bhava Prakash Nighantu, 1st Ed. Volume 1. Chowkhamba Sanskrit Series Office, Varanasi, India; 1969:114-116,307-309.

5. Jethva J, Patel P, Gadhavi J, Parmar H. Study of management of 25 cases of fistula-in-Ano. Int Arch Integrated Med. 2015;2(5):37-42.
6. Chalya PL, Mabula JB. Fistulectomy versus fistulotomy with marsupialization in the treatment of low fistula in Ano: a prospective randomized controlled trial. Tanzania J Health Res. 2013;15(3):1-7.
7. Mogahed M, Elwakeel B, Boraii S. Cutting Seton as surgical management of high anal fistula. Al-AzharAssiut Med J. 2015;13(2):10-2.
8. Kamal ZB. Fistulotomy versus fistulectomy as a primary treatment of low fistula in ano. Iraqi Post Grad Med J. 2012;11(4):1.
9. Gupta SK, Vegad KK, Manolkar R. A comparative study of management of fistula-in-ano with partial fistulectomy combined with medicated seton technique and conventional fistulectomy. Indian J Applied Res. 2015;5(10):679-83.
10. Uraiqat A, Al-Rashaidah M, Al-Shobaki M. Fistula in Ano: A Prospective Audit. J Royal Medical Services. 2010;17(1):43-9.
11. Bhatti Y, Fatima S, Shaikh GS, Shaikh S. Fistulotomy versus fistulectomy in the treatment of low fistula in Ano. Rawal Med J. 2011;36(4):284-6.
12. Malouf AJ, Buchanan GN, Carapeti EA, Rao S, Guy RJ, Westcott E, et al. A prospective audit of fistula-in-ano at St. Mark's hospital. Colorectal Dis. 2002;4:13-9.
13. Rosa G, Lolli P, Piccinelli D, Mazzola F, Bonomo S. Fistula in Ano: Anatomo-clinical aspects, surgical therapy and results in 844 patients. Tech Coloproctol. 2006;10:215-21.
14. Kim JW, Kwon SW, Son SW, Ahn DH, Lee KP. Comparative review of peri-anal sinus and fistula in ano. J Korean Soc Coloproctol. 2000;16:7-11.

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