CLINICAL STUDY OF FISTULA IN ANORaj Siddharth,¹ G Anil Kumar,² S. Sreedhar³**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: Fistula in Ano is a benign treatable lesion of the rectum and the anal canal. Cryptoglandular infection accounts for about 90% of these cases. Majority of the infections are Acute and a minority contributed by chronic low grade infection hence pointing to varying etiologies. The pathogenesis has been attributed to the bursting open of an acute or inadequately treated Anorectal abscess into the peri anal skin. Diagnosis of the condition can be made easily with a good source of light, a proctoscope and a meticulous digital examination. Establishing a cure in this condition is difficult owing to two reasons. Firstly, the site of the infection makes the patient reluctant to subject themselves to examination. Secondly, a significant percent of these diseases persist or recur when appropriate surgery is not done or when the post op care is inadequate. Mostly it affects the young and the middle age group thus affecting productive man hours and quality of life. **MATERIALS AND METHODS:** All cases of clinically diagnosed Fistulae-in-ano above the age of 12 years, admitted in various surgical units in K.R. Hospital (attached to Government Medical College, Mysore) during the study period December 1, 2008 to May 31, 2010. **RESULTS:** Age Incidence, Sex Incidence, Socio Economic Status, Modes of Presentation, No. of External Openings, Situation of External Openings, Level of Fistulae, Type of surgical treatment, Associated with Fissure in Ano, Postoperative complication and Results were studied. **CONCLUSION:** Commonest age of presentation in our series is 30-40 years – 40%. Males are more commonly affected. Ratio Male: Female::3:1, Disease is more commonly seen in people with lower socio economic status group. 80% High socio economic class 20%. Discharging sinus is the commonest mode of presentation 72% and pain 72% and 84% past history of perianal abscess was the presenting symptoms.

INTRODUCTION: Fistula in Ano is a benign treatable lesion of the rectum and the anal canal. Cryptoglandular infection accounts for about 90% of these cases. Majority of the infections are Acute and a minority contributed by chronic low grade infection hence pointing to varying etiologies.

The pathogenesis has been attributed to the bursting open of an acute or inadequately treated Anorectal abscess into the peri anal skin. Diagnosis of the condition can be made easily with a good source of light, a proctoscope and a meticulous digital examination.

Establishing a cure in this condition is difficult owing to two reasons. Firstly, the site of the infection makes the patient reluctant to subject themselves to examination. Secondly a significant percent of these diseases persist or recur when appropriate surgery is not done or when the post op care is inadequate. Mostly it affects the young and the middle age group thus affecting productive man hours and quality of life.

Park's classification.¹ Sir. Alan Parks has classified fistula in ano into 4 major categories. This is more comprehensive classification than the earlier classifications and includes almost all sub types of fistula.

- (i) Inter Sphincteric type. Here the fistulous tract passes between the inter and external sphincters to open on to the peri anal skin. (70%)

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- (ii) Trans sphincteric type. The fistulous tract passes through the sphincteric muscles and lies on the external sphincter to open externally. (23%).
- (iii) Supra sphincteric type. The tract here passes in the inter sphincteric plane above the ano rectal ring and opens on to the exterior. (5%)
- (iv) Extra sphincteric type. The fistulous tract passes outside the sphincter musculature. (2%).

Gautam Chatterjee.² Et al. in his article in Indian Journal of Surger opined that multiple sections following partial fistulotomy is an effective treatment for high anal fistulae with low incidence of incontinence and recurrence.

Parks. A. G. et al.³ in British Journal of Surgery classified the Fistula In Ano into four types based on level of the fistula with respect to the sphincter.

OBJECTIVES:

1. To study the incidence of various etiologies of fistulae occurring in the ano-rectal region.
2. To study the different modes of clinical presentations of these fistulae-in-ano.
3. To study the efficacy of different modalities of surgical approach with reference to persistence / recurrence of fistulae and sphincteric incontinence following surgery.

METHODOLOGY: All cases of clinically diagnosed Fistulae-in-ano above the age of 12 years, admitted in various surgical units in Mahatma Gandhi Memorial Hospital, Warangal during the study period December 1, 20012 to May 31, 2014. A Preformed set of questionnaires will be prepared and tested and the same proforma will be used for the study of selected clinically diagnosed cases of Fistula-in-ano. Personal interview of patients with complete physical examination will be done, giving due importance to local examination.

The relevant investigation done and the line of management followed will be documented. The follow up of the patients will be done for a period of three months A minimum of 50 cases of clinically diagnosed Fistulae-in-ano will be selected on the basis of simple random sampling technique during the scheduled period. The results of the study will be evaluated by using sensitivity, specificity, positive predictive value, mean, standard deviation and other relevant statistical parameters that are necessary will be used.

INCLUSION CRITERIA:

- All cases of clinically diagnosed cases of Fistula-in-ano above the age of 12 years will be taken up for study.

EXCLUSION CRITERIA: All cases below 12 years are excluded. Patients with acute co-morbid condition will be excluded. All the patients were processed by routine investigations, ECG, chest X-ray etc. prior to surgery. Fistulogram was done in selected cases. Patients were treated with fistulotomy or fistulectomy for fistulae. Patients were followed up once in 2 months until the completion of the study.

RESULTS: Fifty cases of fistula in ano were selected randomly using closed envelope method and studied in detail the following results were obtained.

Age Incidence: In this present series, 40% of patients were in the age group of 31 – 40 Years another

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30% of patients were in the age group 20 – 30, 24% of patients were in the age group 41 – 50, 6% of Patients were in age group of above 51.

Sex Incidence of Fistula in ano: In this present series 76% of patients were males and another 24% of Patients females. So the ratio is 3:1.

Socio Economic Status: In the study, 80% of patients were belonging to lower socio economic class and another 20% of patients were from higher socio economic status. This disparity is due to the fact that majority of the patients to attend this Hospital are from a lower socio economic status.

Modes of Presentation: In this series 72% patients pain around the anal region, discharging wound was the presenting complaint in 70%, of the patients. Past history of perianal abscess obtained from 84% of cases from these 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.

Number of external openings: In this study Of 50 cases were randomly selected patients of fistula in ano, 76% of then had only one external opening while 12% had 2 external opening and another 12% had more than 2 openings. Hence fistula in ano with a single external opening is commonest in occurrence.

Situation of external openings: In this study 80% of patients posterior opening and 20% of patients anterior opening, so posterior situation was more common.

Level of fistula: In this study 88% of patients had low level fistula and another 12% of patients had internal opening situated above the ano rectal ring.

Types of Surgical Treatment: In this study 84% of patients underwent Fistulectomy, another 6% of patients underwent Fistulotomy, another 10% underwent Fistulectomy with fissurectomy with sphinctrotomy.

Associated with Fissure in ano: In this study of 10% of patients presented with fissure in ano along with fistula.

Post-Operative Complications and Results:

1. Complete healing - 47 Patients
2. 2 Bleeding - 2 patients
3. 3 Recurrence of Fistula - 3 Patients
4. Haematoma - Nil

Follow-up: In this study, series patients were followed for a period of 3 months to 1 Year. 3 Patients had come with recurrence of fistula in their 9 and 10 month of follow up those who under went fistulotomy with multiple opening. A low level fistula an average heals within 6 weeks where as a high level fistula may take as long as 3 – 6 months to heal.

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Histopathology: Specific - Nil Nonspecific - 50

Relation to Goodsall's Law: In this study of 50 cases, all cases followed Goodsall's Law (External openings of all the anterior Fistulae were within 3 Cm of the anal verge).

DISCUSSION: FISTULA IN ANO:

1. Age Incidence: In the present series of 50 cases, 40% of patients were in the age group of 31–40 years. Another 30% patients were in the age group of 20 – 30 years. Mean age at presentation was 34.5 years.
2. Sex Incidence: In this study of 50 cases studied, 76% patients were male and 24% were females. So the sex ratio is 3:1.
3. Socio Economic Status: In this study of cases, 70% of patients were belonging to lower socio economic status and 30% patients were belonging to higher socio economic status. This fact may be due to illiteracy, ignorance and poor hygiene.
4. Modes of Presentation: In this study of 1 year duration, we could find that the commonest mode of presentation is discharging sinus in 72% of cases. Pain was the associated symptom in 72% cases. Past history of Perianal abscess was the presenting complaint in 84% of patients. Swelling 20%, Recurrent abscess was also, the associated complaint in significant cases. Perianal irritation was seen in 10% of cases.
5. No. of External Openings: In present study, 76% of patients had only one external opening 12% of patients had 2 external openings. Another 12% of patients had more than 2 external openings. From this fact we can conclude that fistula in ano present in majority of cases, with only one external opening.
6. Situation of External Openings: In this present series, of 50 cases, who were randomly selected, 76% of patients had external opening situated posterior to the anal opening. Another 24% of patients had an external opening situated anteriorly.
7. Level of Fistulae: In this study, 88% of patients, had low level of fistula and another, 12% of patients had an internal opening situated above the ano rectal ring.
8. Type of Surgical Treatment: In this study, 84% of the patients underwent fistulectomy and another 6% underwent fistulotomy, 10% of Fistulectomy with fissurectomy with dorsal sphincterotomy
9. Associated with Fissure in Ano: In this study 10% of patients had associated Fissure in Ano.
10. Postoperative Complications and Results
 1. Complete healing - 47 Patients
 2. Bleeding - 2 patients
 3. Recurrence of Fistula - 3 Patients
 4. Haematoma – Nil
11. Follow-up: In this study, series patients were followed once in two months until the completion of the study. Three patients had come with recurrence of fistula in their 9th and 10th month of follow up. Otherwise 90% had responded with complete healing. Recurrence for those who went fistulotomy with multiple external opening low level fistula on an average heals within 6 weeks. Whereas high level fistula may take as long as 3 – 6 months to heal.
12. Histopathology: Specific - Nil Non-specific – 50
13. Relation to Goodsall's Law: In this study, of the 50 cases, all cases followed Goodsall's law (External opening of all the anterior fistulae were within 3 cm, of the anal verge).

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CONCLUSION: Fistula in Ano is a common disease of the anal region caused due to cryptoglandular infection and anorectal abscess. Surgery and treatment with antibiotics can cure the disease. It should be complimented with local antibiotics, sitz bath twice daily without the closure of the primary wound.

Diagnosis is made by History, clinical examination, Per Rectal examination showing discharging sinus with pain.

Histopathological examination of the fistulous tract gave nonspecific etiology for all the 50 cases studied.

Surgery is the treatment for Fistula in Ano. Fistulectomy is better than Fistulotomy because of complete healing and no recurrence after surgery.

SUMMARY:

1. Commonest age of presentation in our series is 30-40 years – 40%.
2. Males are more commonly affected. Ratio Male: Female: 3:1.
3. Disease is more commonly seen in people with lower socio economic status group. 80% High socio economic class 20%.
4. Discharging sinus is the commonest mode of presentation 72% and pain 72% and 84% pass history of perianal abscess was the presenting symptoms.
5. Fistula with only one external opening is the commonest mode of presentation. i.e., 76% with one external opening, 12% with two external opening, 12% more than two openings.
6. Posteriorly situated external opening is commonest in 76% and anteriorly situated opening in 24%.
7. Low level fistula is more common and 6 patients had high level fistula with 88% and 12% respectively.
8. Majority of patients underwent fistulectomy i.e. 84%, 6% underwent fistulotomy, 10% underwent fistulectomy with fissurectomy with dorsal sphincterotomy.
9. Three patients had developed recurrence of fistula in their 9th and 10th months of follow up.
10. None of the patients developed anal incontinence.
11. Histopathology showed non-specific causes in all the 50 cases.
12. Fistulectomy is better than fistulotomy, because of complete healing and no recurrence after surgery.
13. Surgery is the treatment for Fistula in ano.
14. Relation to Goodsall's rule, external opening all the anterior fistulae were within 3 cm of the anal verge.
15. Low level fistula on an average heals within 6 weeks, whereas high level fistula may take as long as 3-6 months to heal.

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