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# Study of Clinical Profile of Fistula in Ano: A Cross Sectional Study

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**ABSTRACT**
Fistula-in-ano is a common anorectal condition that is primarily seen in younger and mid-aged people and leads to chronic morbidity and surgery is the primary treatment option. Recurrence and incontinence rates are higher in complex anal fistulas as compared to simple anal fistulas, therefore there are large number of surgical procedures for treating complex anal fistulas. Many factors such as etiology, complexity and other factors affect the results, therefore there is no single best method for treating fistula in ano. As compared to other methods ligation of the intersphincteric tract (LIFT) has low rate of fecal incontinence and seems to be a effective treatment. The aim of this study was to study clinical profile of Fistula-in-ano (Cross sectional study). The patients were examined based on their demographic details, baseline physical and clinical examination findings specific to patients such as Perianal discharge (Duration, type and number of episodes), Pain (Duration and type), Swelling in perianal region if present, External and internal openings of the fistula (Number, site, level) and any previous history of abscess or proctological surgery. The surgical procedures, complications, incontinence, recurrence, abscess formation and healing duration were evaluated and compared. A total of 82 patients were enrolled in this cross sectional study, out of which 40 patients underwent fistulectomy, 36 patients underwent fistulotomy and 6 patients underwent LIFT with seton. The patients were examined based on their demographic details, baseline physical and clinical examination findings specific to patients and the number, level and location of internal and external openings The mean healing duration for fistulectomy was 43 days, fistulotomy was 46.81 days and for LIFT was 45.83 days. However, the recurrence rate was higher in fistulotomy and perianal abscess was seen in LIFT procedure. In this study it was observed that the most common etiology that leads to fistula in ano is Cryptoglandular infection. Majority of the patients presented with spontaneous rupture of perianal abscess along with perianal pain and pus discharge. Patients of low anal fistula were managed by fistulectomy and fistulotomy with post operative complications such as recurrence and healing time in both the procedure were similar. LIFT procedure was carried in extra sphincteric fistula with post operative complication such as abscess was seen.

## INTRODUCTION

One of the first illnesses to be identified was anal fistula. An abnormal connection between perianal skin and epithelial membrane of anal canal is known as a fistula in ano[1]. It develops after an anal gland infection. Following an anal abscess, it manifests in 26-38% patients. Fistula in the ano connects the primary opening of the anal canal and the secondary opening of the perianal skin. It is a hollow tract that is covered in granulation tissue. Usually, it results from an infection of the anal glands that was followed by an earlier anorectal abscess. Radiation therapy, TB, actinomycosis, chlamydial infections, anal fissures, Crohn's disease, trauma, anorectal cancer can cause an anal fistula[2]. Due to postoperative problems including incontinence and recurrence, it is simple to diagnose but difficult to cure.

Intermittent or continuous leakage or discharge is the main symptom of an anorectal fistula. Its prevalence is estimated to be between 8.6 and 10 per 100,000 people annually, with a male to female ratio of 1.8:164. It is a common surgical issue with a high recurrence rate. One of the main diseases is an acute or ineffectively treated anorectal abscess that bursts open[3]. It affects anal canal and rectum is a benign curable lesion. A new sphincter-saving method for treatment of anal fistula is closure of the inter sphincteric fistula tract. The most of the fistulas are simple to identify with some excellent lighting, with the use of proctoscope and digital rectal examination. Park divided anal fistulas in to the four categories: inter-sphincteric, trans-sphincteric, supra-sphincteric and extra-sphincteric based on how tract is related to the anal sphincters. Anal fistulas are divided into simple and complicated categories.

A complex fistula is one that extends over 30% of the external sphincter, is recurring, or has numerous pathways. Treatment for complex fistulas is typically accompanied with a significant risk of incontinence or recurrence[4]. Fistulotomy, fistulectomy, seton implantation, endorectal advancement flaps, fistula plugs, fibringlue injection and ligation of intersphincteric fistula tract (LIFT) are some of the surgical procedures for anal fistulas. The degree of sphincter involvement and preservation of internal and external anal sphincters for continence maintenance determine how an anal fistula is surgically treated[5]. Control of sepsis, fistula closure and continence maintenance are the three basic goals of fistula inano surgery[3]. As opposed to the conventional cutting seton, surgical opening or excision of tract, fistula plug to Ligation of fistulous tract (LIFT) and Video Assisted Anal Fistulous Tract (VAAFT) techniques, fistula management has become more practical as a result of the evaluation of contemporary medical science and newer diagnostic surgical technique.

**Aim and Objectives:** This study aims to understand the clinical profile of fistula in ano in order to offer the patient the best possible treatment. Is to study clinical profile of fistula in ano with respect to:

- Clinical profile
- Lab findings
- Management
- Outcome
- Perineal Imaging-MRI used for confirmation of diagnosis and classificationof anal fistula.
- Operative management-
- Fistulectomy
- Fistulotomy
- Ligation of intersphincteric fistula (LIFT)

## MATERIALS AND METHODS

In this study, we compared the results of fistulectomy, fistulotomy and LIFT procedures in 82 patients with fistula in ano. This cross-sectional study was carried at a tertiary care hospital during the study period of 2 years from January 2021 to December 2022. As this was a time bound study every consecutive patient who came to OPD with fistula in ano fulfilling inclusion criteria of patients admitted to surgical wards of tertiary care hospital diagnosed with fistula in ano including the comorbidities as Crohns disease, Tuberculosis, Immuno-compromised patients i.e. HIV, HbsAG, Diabetes mellitus and age more than 18 years including both genders were included in the study. After the history was taken, the patients were examined in the knee-elbow position and the external opening of the fistula, its number, level and site and where possibly will be the internal opening, was noted. Also the patients were asked regarding history of previous anal abscess or any proctological surgery. The aim of this study was to understand the clinical profile of fistula in ano in order to offer the patients the best possible treatment.

The study factors studied were demographic details including age in years, gender, geographical area, baseline physical and clinical examinations findings specific to patients like duration of onset, perianal discharge (duration, type, no of episodes), pain (duration, type), swelling in perianal region, external opening (number, site), internal opening (number, level) and diagnosis based on clinical examination and investigations including laboratory investigations (CBC-ESR-Blood group-HIV-HbsAg), proctoscopy and MRI fistulogram and its management. The management of fistula in ano included procedures like fistulectomy, fistulotomy and ligation of inter sphincteric fistula (LIFT). The complications of these procedure are infection and sphincter incontinence. A standardised preform was used to collect the data, which was then weekly recorded into an excel sheet.

This study was carried out after the approval of the institutional ethics committee. Study was carried out in tertiary care hospital at institutional level during the period of January 2021 to December 2022. Written and informed consent was obtained from each patient in English and local languages.

## RESULTS AND DISCUSSIONS

### Demographic Factor

### Age Distribution:

- A total of 82 patients were enrolled in the present study from study period
- The mean age of 82 subjects who were enrolled in the present study was 41.05 years SD±11.39, Range (18 Years -73 years). On further stratifying on decade wise maximum number of patients that is 59.6% were seen in more than 30-50 years of age group. (Table 1)

**Gender:** Of the 82 patients enrolled 70 patients were male (85.4%) and was found ratio of 5.8:1 showing male preponderance.

### Clinical Presentations

### Symptomatology:

**Pain in Perineum:** All patients enrolled in the study as Pain in Perineum as Presenting symptom, The mean duration of Pain was 6.95 months SD±5.15.

**Perianal Pus Discharge:** All patients enrolled in the study had Perianal pus discharge. The mean duration of pus discharge was 6.96 months SD±5.14.

**Perianal Infection in the Past:** All 82 patients enrolled gave history of Perianal pain in past, of them all patients presenting with Perianal pain and swelling and features suggestive of Perianal Abscess. Of them 48 patients (58.54%) reported spontaneous rupture with pus discharge while 34 patients (41.46%) gave history of being treated by Incision and drainage.

**Previous History of TB:** Out of 82 patients 3 patients presented with a previous history of TB (3.66%).

**Clinical Examination:** The clinical examination mainly comprised of local examination and the finding are as follows.

**External Openings:** Presence of Perianal external opening was one of the diagnostic criteria for inclusion as Fistula in Ano. Of the 82 patients enrolled, single external opening was observed in 77 patients (93.90%) while 5 patients (6.1%) had two or more external openings.

**Position of External Openings:** Of the 82 patients 37 patients (45.12%) had openings in 3-5 O'clock position followed by 8 (9.75%) openings in 9-11 O'clock position followed by 30 (36.58%) openings in 6-8 O' clock position followed by 7 (8.53%) openings in 12 -2 O'clock position suggesting majority of external opening was in 3-5 O'clock position. (Table 2).

**Internal Opening:** On Digital rectal examination, Presence of internal opening was criteria for diagnosing a fistula in ano in association with external opening. 67 internal opening were found in Posterior midline (81.70%) and rest 15 (19.29%) were in Anterior midline. Majority of anterior midline opening had straight tract fulfilling the dictate the Good sall"s rule. Of the 82 patients 20 patients (24.39%) had openings in 3-5 O"clock position followed by 13 (15.86%) openings in 9-11 O"clock position followed by 39 (47.56%) openings in 6-8 O"clock position followed by 10 (11.94%) openings in 12-2 O"clock position suggesting majority of internal opening was in 6-8 O"clock position. (Table 3).

**Perineal Imaging:** The modality of Perineal imaging used in the present study was MRI (Magnetic Resonance Imaging) of Perineum. This was done to know the anatomy of fistula, its relationship to sphincter, any localised collection and additional tracts. Intersphincteric fistula is commonest modality 51 (62.2%) followed by Transphincteric fistula in 25 patients (30.49%) and rest 6 patients (7.32) are Extrasphincteric. (Table 4)

**Etiology:** Histopathology of excised tract was nonspecific inflammation which suggested of cryptoglandular infection of fistula.

**Management:**The outcome of surgical procedure were evaluated and result were as follows

### Postoperative Complication

### Immediate Complication

**Perineal abscess formation:** None of the patient who underwent Fistulectomy and Fistulotomy had Perineal

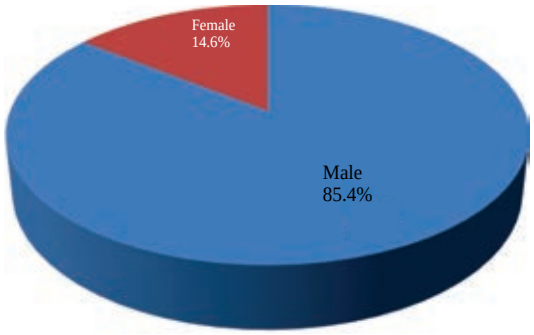


Fig. 1: Gender distribution (%) of subjects

**Table 1: Showing mean age with their age distribution**

| Age in yrs | No. of patients | Percentages |
|---|---|---|
| 18-30 | 18 | 21.9 |
| >30-40 | 20 | 24.4 |
| >40-50 | 29 | 35.4 |
| >50 | 15 | 18.3 |
| Total | 82 | 100 |

**Table 2: Showing distribution according to the position of external opening**

| External opening | No. of external opening | Percentage |
|---|---|---|
| Posterior Midline | 66 | 80.48 |
| Anterior Midline | 16 | 19.51 |
| Total | 82 | 100 |

**Table 3: Showing distribution according to the position of internal opening**

| Internal opening | No. of internal opening | Percentage |
|---|---|---|
| Posterior Midline | 67 | 81.70 |
| Anterior Midline | 15 | 19.29 |
| Total | 82 | 100 |

**Table 4: Showing level of fistula**

| Level of Fistula | No. of patients | Percentage |
|---|---|---|
| Intersphincteric fistula | 51 | 62.2 |
| Transphincteric fistula | 25 | 30.49 |
| Extraspincteric fistula | 6 | 7.32 |
| Total | 82 | 100 |

**Table 5: showing surgical procedures performed in study**

| Procedure | No. of patients | Percentage |
|---|---|---|
| Fistulectomy | 40 | 48.8 |
| Fistulotomy | 36 | 43.9 |
| LIFT with seton | 6 | 7.3 |
| Total | 82 | 100 |

abscess formation. One patient (16.6%) out of six operated by LIFT (Ligation of fistulous tract) develop abscess.

### Delayed Complication

**Healing Duration:** The healing duration after surgical procedure were as follows: Mean healing duration for Fistulectomy was 43 days SD±7.23 Fistulotomy was 46.81 days SD±5.63 while mean healing duration of LIFT was longest 45.83 days SD±9.17. (Table 6).

**Recurrence:** Recurrence of fistula was observed in total of 4 patients of them two patient belongs to Fistulectomy group (5%) and two belongs to Fistulotomy group (5.55%) giving total recurrence rate of 10.55%.

**Incontinence:** Incontinence was observed in none of the patients.

Fistula in ano is an anorectal condition which can be diagnosed easily but its management is tricky and difficult as recurrence and incontinence are two important complication which usually complicate surgery. The present study was an effort to evaluate the etiology, clinical features, type of fistula and its management.

**Age:** Fistula in ano is most commonly seen in age group between 30-50 years[6]. In present study also the mean age of the patients was 41.05±11.39 years which is quite consistent with the statistic quoted in the literature Sarkar *et al.,*[7] Cetinkya *et al.,*[8] Potula *et al.,*[4] Phinehas *et al.,*[9] Saxena *et al.*[2] (Table 7).

**Gender:** Fistula in ano more commonly affect male[6] and male to female ratio in present study was found of 5.8:1.This results are quite consistent with literature Ahmad Uriqat *et al.,*[10] Cetinkya *et al.,*[8] Potula *et al.,*[4] Phinehas *et al.,*[9] Saxena *et al.,*[2] Hareesh GSR *et al.*[6] (Table 8).

### Clinical Presentations

**Symptomatology:** Pain and Perianal discharge are the two most important symptom in presenting with fistula in ano. This was observed in all patients in the present series. These two symptoms were found in present study. This finding are quite consistent with finding described in the literature Vasilevsky *et al,*[11] Sarkar *et al.,*[7] Akhtar *et al.,*[12] Potula *et al.,*[4] Yadu *et al.,*[1] Hareesh GSR *et al.,*[6] Saxena Petal.[2] (Table 9).

**Perianal Sepsis:** Considering that the majority of Fistula in ano are originating in cryptoglandular apparatus in the anal canal which leads to formation of perineal abscess which either burst spontaneously or require Incision and Drainage. In present study 41.46% patients gave history of Incision and Drainage for perineal abscess which is quite higher than literature quotes figure from 30-40% Jayant *et al.,*[13] Rickarad *et al.,*[14] Akhtar *et al.,*[12] Paulo Goncalves de Oliveira *et al.,*[15] Yadu *et al.,*[1] Hareesh GSR *et al.*[6] The reason could be majority of the patient were from urban areas and had access to surgical expert. (Table 10)

### Clinical Examination

**External Opening:** Majority of Fistula present with single external opening which was observed in single study. This finding were consistent with Yadu *et al.*[1] (76%) and Hareesh GSR *et al.*[6] (89.30%) study. 80.48% of our external opening are posterior midline and this finding are quite consistent as figure quoted in the literature which range from73-93% Tated *et al.*[16], Yadu *et al.,*[1] Hareesh GSR *et al.,*[6] Saxena *et al.,*[2] Qureshi *et al.*[10] (Table11)

**Internal Opening:** Similarly Internal opening were also found in posterior midline accounting 81.70% of patients. This account literature where range is 63.49-94.7% Akhtar *et al.,*[12] Tated *et al.,*[16] Qureshi *et al.,*[17] Yadu *et al.,*[1] Saxena Petal,[2] Hareesh GSR *et al.,*[6] (Table12). It is very important to classify fistula in ano for accurately removing the infected tract without damaging sphincter mechanism for which MRI Perineumis an important diagnostic tool. Inter

**Table 6: Pair-wise comparison of mean healing duration (days) of 2 independent groups by Unpaired t-test**

| Procedure | Mean Std. Dev. | Pair-wise comparison of mean healing duration in two gropus | | | | | Result |
|---|---|---|---|---|---|---|---|
| Fistulectomy | 43 7.23 | Fistulectomy | Vs | Fistulotomy | Mean difference = -3.8 | p = 0.0133 | Significant |
| Fistulotomy | 46.81 5.63 | Fistulectomy | Vs | LIFT | Mean difference = -2.83 | p = 0.3919 | Not Significant |
| LIFT with seton | 45.83 9.17 | Fistulotomy | Vs | LIFT | Mean difference = -0.98 | p=0.7209 | Not Significant |
| Total | 44.886.89 | | | | Overall For 3 groups | p = 0.0501 | Probably Significant |

**Table 7: Showing mean age of presentation**

| Study | Year | Number of patient | Mean Age (years) |
|---|---|---|---|
| H Sarkar *et al*[7]. | 2008 | 74 | 40.06 |
| Cetinkya E *et al*[8]. | 2016 | 24 | 40.5 |
| Potula *et al*[4]. | 2017 | 60 | 45.34 |
| Phinehas E *et al*[9]. | 2018 | 75 | 42.8 |
| Saxena P *et al*[2]. | 2019 | 90 | 46 |
| Present study | | 82 | 41.05 |

**Table 8: Showing Male Female ratio of Fistula in ano**

| Study | Year | No. of Patients | Males | Females | Male: Female ratio |
|---|---|---|---|---|---|
| Ahmad Uriqat *et al.*[10] | 2010 | 43 | 36 | 7 | 5:1 |
| Cetinkya *et al*[8]. | 2016 | 24 | 17 | 7 | 2.4:1 |
| Potula *et al*[4]. | 2017 | 50 | 40 | 10 | 4:1 |
| Phinehas *et al*[9]. | 2018 | 75 | 52 | 23 | 2.26 |
| Hareesh GSR *et al*[6]. | 2019 | 75 | 60 | 15 | 4:1 |
| Saxena *et al*[2]. | 2019 | 90 | 78 | 12 | 6.5:1 |
| Present study | | 82 | 70 | 12 | 5.8:1 |

**Table 9: Showing clinical presentation of fistula in ano**

| Study | Year | Pain | Pus Discharge |
|---|---|---|---|
| Vasilevsky *et al*[11]. | 1985 | 64% | 65% |
| H Sarkar *et al*[7]. | 2008 | 56.16% | 40.62% |
| Akhtar M *et al*[12]. | 2011 | 100% | 100% |
| Potula *et al*[4]. | 2017 | - | 100% |
| Yadu S *et al*[1]. | 2018 | 66% | 74% |
| Hareesh GSR *et al*[6]. | 2019 | 66.7% | 82.7% |
| Saxena P *et al*[2]. | 2019 | 82.8% | 91.1% |
| Present Study | - | 100% | 100% |

**Table 10: showing percentage of patients underwent I&D and presented with fistula in ano**

| Study | Year | Percentage of patient underwent I and D and presented with fistula in ano |
|---|---|---|
| Jayant *et al*[13]. | 1997 | 31 |
| RickaradM *et al*[14]. | 2005 | 30 |
| Akhtar M *et al*[12]. | 2011 | 34.92 |
| Paulo Goncalves de Oliveira *et al*[15]. | 2012 | 38.1 |
| Yadu *et al*[1]. | 2018 | 40 |
| Hareesh GSR *et al*[6]. | 2019 | 33.3 |
| Present study | | 41.46 |

**Table 11: Showing distribution according to the position of external opening**

| Study | Year | Posterior midline | Anterior midline |
|---|---|---|---|
| Tated SP *et al*[16]. | 2017 | 85.18% | 14.81% |
| Qureshi IP *et al*[17]. | 2018 | 80% | 20% |
| Yadu S *et al*[1]. | 2018 | 76% | 14% |
| Saxena P *et al*[2]. | 2019 | 73.3% | 26.7% |
| Hareesh GSR *et al*[6]. | 2019 | 93.3% | 6.7% |
| Present study | | 80.48% | 19.51% |

**Table 12: Showing distribution according to the position of internal opening**

| Study | Year | Posterior midline | Anterior midline |
|---|---|---|---|
| Akhtar M *et al*[12]. | 2011 | 63.49% | 36.51% |
| Tated SP *et al*[16]. | 2017 | 83.95% | 16.05% |
| Qureshi IP *et al*[17]. | 2018 | 92% | 8% |
| Yadu S *et al*[1]. | 2018 | 88% | 12% |
| Saxena P *et al*[2]. | 2019 | 72.2% | 27.8% |
| Hareesh GSR *et al*[6]. | 2019 | 94.7% | 4.3% |
| Present study | | 81.70% | 19.29% |

**Table 13: Demonstrating the level of fistula in ano**

| Study | Year | Intersphincteric Fistula | Transphincteric Fistula | Suprasphincteric Fistula | Extraspincteric Fistula |
|---|---|---|---|---|---|
| Parks *et al*[18]. | 1976 | 45% | 30% | 20% | 5% |
| Ahmad Uraiqat *et al*[10]. | 2010 | 34.9% | 39.5% | 7% | 0% |
| Akhtar M *et al*[12]. | 2011 | 76.12% | 17.91% | 05.97% | 0% |
| Cetinkaya E *et al*[8]. | 2016 | 87.5% | 12.5% | 0% | 0% |
| Potula *et al*[4]. | 2017 | 46% | 42% | 12% | 0% |
| Banasode *et al*[19]. | 2018 | 65% | 30% | 0% | 5% |
| Present study | | 62.2% | 30.49% | 0% | 7.32% |

**Table 14: Showing healing duration after surgical procedures**

| Study | Year | Fistulectomy (days) | Fistulotomy (days) | Ligation of intersphincteric fistula tract (LIFT) (days) |
|---|---|---|---|---|
| Kronborg *et al*[20]. | 1985 | 41 | 34 | - |
| Ahmad Uraiqat *et al*[10]. | 2010 | - | 42 | - |
| Vyas *et al*[23]. | 2017 | - | 28 | - |
| Vinay *et al*[24]. | 2017 | - | 56 | 35 |
| Hassan Younes *et al*[25]. | 2017 | - | - | 32 |
| Vidyanendh *et al*[21]. | 2018 | 42 | - | 35 |
| Barase *et al*[22]. | 2018 | 21 | 12 | |
| Present study | - | 43 | 46.81 | 45.83 |

sphincteric and Transphincteric fistula are accounted of majority of cases in present study. This finding are still consistent with literature Parksetal,[8] Ahmad Uraiqat Detal,[10] Akhtar Metal[12] Cetinkya *et al.,*[8] Potula *et al.,*[4] Banasode *et al.*[18] Extrasphincteric fistula was observed in 7.31% of cases which is quite with Park's *et al.*[18] (Table12).

**Management:** The patient with Inter sphincteric, Tran sphincteric fistula underwent either Fistulectomy and Fistulotomy depending on the choice of surgeon operating in different unit. However all Extra sphincteric fistula were treated by Ligation of fistulous tract (LIFT) procedure. The mean healing duration after Fistulectomy was 43 days which is quite consistent of 41-42 days reported by Kronberg[20] and Vidyanendh[21] only Barase *et al.*[22] showed mean healing duration of 21 days which could be selection of patient having small tract. The mean healing duration of Fistulotomy was 46.81 days which is quite consistent with the study of Kronberg,[20] Ahmad Uraiqat[10] and Vyasetal[23] study. However it was very long study of Vinay[24] and too short in Barase[22] case. This difference can be explained on the basis of patient selection. Mean healing duration after Ligation of fistulous tract (LIFT) was 45.83 days. This results are more than quoted inthe literature Kronborg *et al.,*[20] Ahmad Uraiqat *et al.,*[10] Vyas *et al.,*[23] Vinay *et al.,*[24] Hassan Younes *et al,*[25] Vidyanendh *et al.*[21] Barase *et al.*[22] which varies 32-35days (Table13).

**Post Operative Complication:** The present study had no post operative Incontinence. Recurrence was observed in two patients of Fistulectomy group (5%) this is quite consistent with Barase[22] (2.38%) and Hareesh GSR (2.7%) *et al.*[6] study. Recurrence was observed in two patients (5.55%) of Fistulotomy group and this is quite consistent Hareesh GSR[22] (3.7%) and Barase (2.38%) *et al.*[22] study while it is more in Kharadi *et al.*[26] study (8%). Perianal abscess was observed in one patient (16.6%) after Ligation of fistulous tract with seton (LIFT) which is quite higher than Vinay *et al.*[24] study (8%).

**Limitation of Study:** The present study was a cross sectional study which studied the cause of fistula in ano which was cryptoglandular infection. Three different surgical procedures were carried out. Of them two were compared of complication and duration of healing for which the present study design is not appropriate. In order to study the efficacy of these surgical procedure and derived a class 1 evidence Randomised control trial is the only answer.

**Summary:**

- A total of 82 patients were included in this study
- The mean age of the patient was 41.05 years SD±11.39 years. The most commonly affected age group was 30-50 years which accounted for half (59.8 %) of the cases.
- Majority of patients were male (85.4%) showing male preponderance (5.8:1).
- The mean pain duration was 6.95 months SD±5.15 while mean duration of perianal pus discharge was 6.96 months SD±5.14.
- 48 patients (58.54%) had spontaneous rupture of perianal abscess and 34 patients (41.46%) gave history of Incision and drainage.
- On Perineal examination 77 patients (93.90%) presented with single external opening and patients (6.1%) with two or more external opening.
- Sixty-six patients (80.48%) had external opening in posterior midline while 16 patients (19.51%) had external opening in anterior midline.
- Based on Goodsall"s rule, 67 patients (81.70%) had internal opening in posterior midline while 15 patients(19.29%) had internal opening in anterior midline.
- On Perianal MRI, 51 (62.2%) patients were found to have Intersphincteric course, 25 (30.49%) patients were having Trans sphincteric course and 6 (7.32%) patients were having extra sphincteric course.
- Fourty patients underwent Fistulectomy (48.8%), 36 patients underwent Fistulotomy (43.9%) and 6 patients underwent ligation of inter sphincteric fistulous tract (LIFT) (7.3%).
- The mean duration of healing in the present study was 44.88 days with SD±6.89.
- In present study Recurrence of fistula was observed in total of 4 patients of them two patient belongs to Fistulectomy group and other two belongs to Fistulotomy group giving recurrence rate of 5 and 5.55% respectively. While one

patient develop Perianal abscess after ligation of inter sphincteric fistula tract (LIFT) (16.6%).

- Histopathology of excised tract was nonspecific inflammation which was suggested of cryptoglandular infection of fistula.

## CONCLUSION

In present study Cryptoglandular infection was the most common etiology that leads to fistula in ano. Patient present with both perianal pain and pus discharge with spontaneous rupture of perineal abscess was seen in majority of patients.On clinical examination, majority of patients had single external opening and of them most were in posterior midline. Majority of patients had internal opening in posterior midline. Patients of low anal Fistula managed by Fistulectomy or Fistulotomy with post operative complication such as recurrence and healing time in both the procedure were similar. Ligation of Inters phincteric Fistula tract (LIFT) procedure was carried in Extras phincteric Fistula with post operative complication such as abscess was seen

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