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A Study of Management of Fistula in Ano at a Tertiary Health Care Centre

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Abstract: A Fistula is an abnormal communication between any two epithelial-lined surfaces. Fistula in Ano is an abnormal communication between the anal canal and the perineal skin. Fistula in ano denotes the chronic phase of anorectal sepsis and is characterized by chronic purulent drainage or cyclical pain associated with abscess reaccumulation followed by intermittent spontaneous decompression. Present study was a prospective study in Department of Surgery, Fathermuller medical college and hospital. The source of data for our study was 60 patients who presented with their complaints to the surgery OPD. 60 cases of Fistula in Ano were selected and randomly divided in for the three surgical modalities equally (20 patients in each group). Group A was Fistulectomy Group. Group B was Fistulotomy Group and Group C was Seton Application group.

Keywords: Fistula, Ano, carcinoma.

INTRODUCTION:

A Fistula is an abnormal communication between any two epithelial-lined surfaces. Fistula in Ano is an abnormal communication between the anal canal and the perineal skin (Milligan etc. 1943; & Scoma, J. A. *et al.,* 1974). Fistula in ano denotes the chronic phase of anorectal sepsis and is characterized by chronic purulent drainage or cyclical pain associated with abscess reaccumulation followed by intermittent spontaneous decompression.

Anal fistula is a condition that has been described virtually from the beginning of medical history. The fact is that no one goes whole to the grave with perfect anal control following surgery if an anal fistula traversed a significant portion of the external sphincter.

Numerous conditions, which may be classified as specific or nonspecific, can cause the formation of a fistulous abscess. Nonspecific ones are cryptoglandular in origin. Specific ones include the following: Crohn"s disease, chronic ulcerative colitis, tuberculosis (TB), actinomycosis, presence of a foreign body, carcinoma, lymphoma, lymphogranulomavenereum, pelvic inflammation, trauma (impalement, enemas, prostatic surgery, episiotomy, hemorrhoidectomy), radiation, and leukemia.Actinomycosis must be suspected if blackish/sulphur granules are seen extruding from fistulous opening (Lee, M., & Decker, G. A. G. 1986).

Practice parameters for the treatment of a number of colorectal conditions have been established by the Standards Practice Task Force of the American Society of Colon and Rectal Surgeons (Vasilevsky, C. A., & Gordon, P. H. 1984). These recommendations have also been established for the evaluation and treatment of fistula in-ano.

Simple anal fistulas may be treated by fistulotomy or track debridement and fibrin glue injection. Complex anal fistulas may be treated with endorectal advancement flap closure or debridement and fibrin glue injection or use of a seton and/or staged fistulotomy (Kreis, M. E. *et al.,* 1998; Sm, S. 2003; & Kuypers, H. C. 1984).

Complications of fistula surgery are myriad and include fecalsoilage, mucous discharge, varying degrees of incontinence (gas and/or stool) and recurrent abscess and fistula. The fact is that no one goes whole to the grave with perfect anal control following surgery if an anal fistula traversed a significant portion of the external sphincter. Clearly, the surgeon who is fortunate enough to have the opportunity to treat the patient initially is the one most likely to effect a cure.

Aim & objective:
To study the management of fistula in Ano at a tertiary health care centre.

MATERIAL & METHODS:

Present study was a prospective study in Department of Surgery, Fathermuller medical college and hospital. The source of data for our study was 60 patients who presented with their complaints to the surgery OPD. These patients met the inclusion criteria set for this clinical study. The study period is from 2018 to 2020.

Inclusion criteria:
- Low Anal Fistula
- High Anal Fistula

Exclusion criteria:
- Fistula in ano associated with Heamorrhoids and or Fissure in ano.
- Fistula in ano associated uncontrolled with systemic medical conditions.
- Patient not willing for surgery

Study was approved by ethical committee of the institute. A valid written consent was taken from patients after explaining study & procedure to them.

The selected patients were done randomly assigned to groups using closed envelope method, they were subjected to a detailed history elicitation followed by thorough evaluation of risk factors and clinical features. Clinical examination including per rectal and proctoscopy was done in all patients.

They were then subjected with baseline investigations (Biochemistry, Haemogram,USG Abdomen). These were then be followed up by specific investigations like fistulogram, MRI if required in selected cases. Each patient was individualized and treated accordingly.

The area was prepared by shaving the back, groin and perianal regions. Soap and water enema was used for preoperative bowel preparation.Antibiotics were given. All surgeries were performed by Consultants or Senior Registrars in the day time; during regular working hours.

Spinal anaesthesia was preferred as it provides adequate muscle relaxation for the easy conduct of the surgery. The patient was placed in the lithotomy position. A digital examination and proctoscopy was performed. The tract was identified by gentle probing from the external opening. Methylene blue and hydrogen peroxide was injected from the external opening to delineate the tract and to determine the internal opening.

In fistulotomy, the entire tract from the internal opening to the external opening was laid open. The cut edges of the anal mucosa and the underlying anal sphincter were over sewn for hemostasis. A thorough cleansing with normal saline and Betadine was done.The entire tract was excised in Fistulectomy which was sent for histopathology examination. Primary closure was an option depending on the wound size. A doubled No.2 silk material was used as a seton and it was securely tied with moderate tension (Loberman, Z. *et al.,* 1993).

The outcomes were documented using proforma and followed up for a period of 1 year. Data was analysed with appropriate statistical tests.

RESULTS:

60 cases of Fistula in Ano were selected and randomly divided in for the three surgical modalities equally (20 patients in each group). Group A was Fistulectomy Group. Group B was Fistulotomy Group and Group C was Seton Application group.

In our study 31.66% of the patients were in the age group of 21-30 years, 30% in the age group of 31-40 years , 30% in the age group of 41-50 years and 8.33% were in age group of 51-60 years with statistically not significant Chi-square value of 0.839, Degree of Freedom 6 & p value 0.991. (Table 1)

In our study 78.33% of the patients were males and 21.67% females with statistically not significant Chi-square value of 1.375, Degree of Freedom 2 & p value 0.503. (table2)

In our study 96.66% of patients presented with discharge, 80% of the patients presented with pain, 80% of patients had past history of perianal abscess, 63.33% of patients presented with swelling, 16.66% of patients presented with pruritis ani. (Fig 1)

Out of 60 patients 86.66% of the patients presented with purulent discharge, 6.66% of the patients presented with bloody discharge, 3.33% of the patients presented with serous discharge. 96.66% of the patients presented with low anal fistula and 3.33% of the patients presented with high anal fistula.

In our study, 80% of the patients had single fistulous opening, 10% had 2 fistulous opening and 10% had more than 2 fistulous openings externally.

In our study, 3.33% of the patients had bleeding postoperatively,1.67% of the patients developed hematoma, 16.67% of the patients developed urinary retention with statistically significant Chi-Square value of2.860& p value of 0.05. (table 3)

In our study, patients who underwent fistulotomy had a mean pain score of 6.5, fistulectomy had mean pain score 4, seton had mean pain score 2.

In this study, 51.67% of the patients stayed at hospital for less than 1 week , 40% of the patients stayed at the hospital in between 1 to 2 weeks , 6.67% of the patients stayed at the hospital in between 2 to 3 weeks , 1.67% of the patients stayed at the hospital in between 3 to 4 weeks with statistically significant Chi-Square value of 30.202& p value of 0.01. (Table 4)

In this study, 53.33% of the patients wound healed in less than 1 week , 11.67% of the patients wound healed in 1 to 2 weeks , 8.33% of the patients wound healed in 2 to 3 weeks , 8.33% of the patients wound healed in 3 to 4 weeks , 18.33% of the patients wound healed in > 4 weeks with statistically significant Chi-Square value of 70.200& p value of 0.000. (Table 5).

At follow up 3.33% patients showed recurrence.

Table 1: Comparison of three groups of Fistula in Ano treatment according to age group

Age	Group A	Group B	Group C	Total	%
21-30	6	6	7	19	31.66
31-40	7	6	5	18	30
41-50	6	6	6	18	30
51-60	1	2	2	5	8.33
	20	**20**	**20**	**60**	**100**

Table 2: Comparison of three groups of Fistula in Ano treatment according to age group

Sex	Group A	Group B	Group C	Total	%
Male	16	17	14	47	78.33
Female	4	3	6	13	21.67
	20	**20**	**20**	**60**	**100**

Table 3: Post operative complications in Fistula in Ano patients

Post-Operative Complications	Fistulectomy	Fistulotomy	Seton Group	Total	% (N=60)
Bleeding	0	2	0	**2**	**3.33**
Hematoma	1	0	0	**1**	**1.67**
Urinary Retention	4	6	0	**10**	**16.67**

Table 4: Comparison of three groups of Fistula in Ano treatment according to hospital stay

Hospital Stay	Fistulectomy	Fistulotomy	Seton	Total	Percentage (N=60)
< 1 Week	11	2	18	31	51.67
1-2 Weeks	9	13	2	24	40
2-3 Weeks	0	4	0	4	6.67
3-4 Weeks	0	1	0	1	1.67
	20	20	20	60	100

Table 5: Comparison of three groups of Fistula in Ano treatment according to wound healing time

Wound Healing	Fistulectomy	Fitulotomy	Seton	Total	Pecentage
<1 Wk	12	0	20	32	53.33
1-2 Wks	7	0	0	7	11.67
2-3 Wks	1	4	0	5	8.33
3-4 Wks	0	5	0	5	8.33
>4 Wks	0	11	0	11	18.33
				60	100

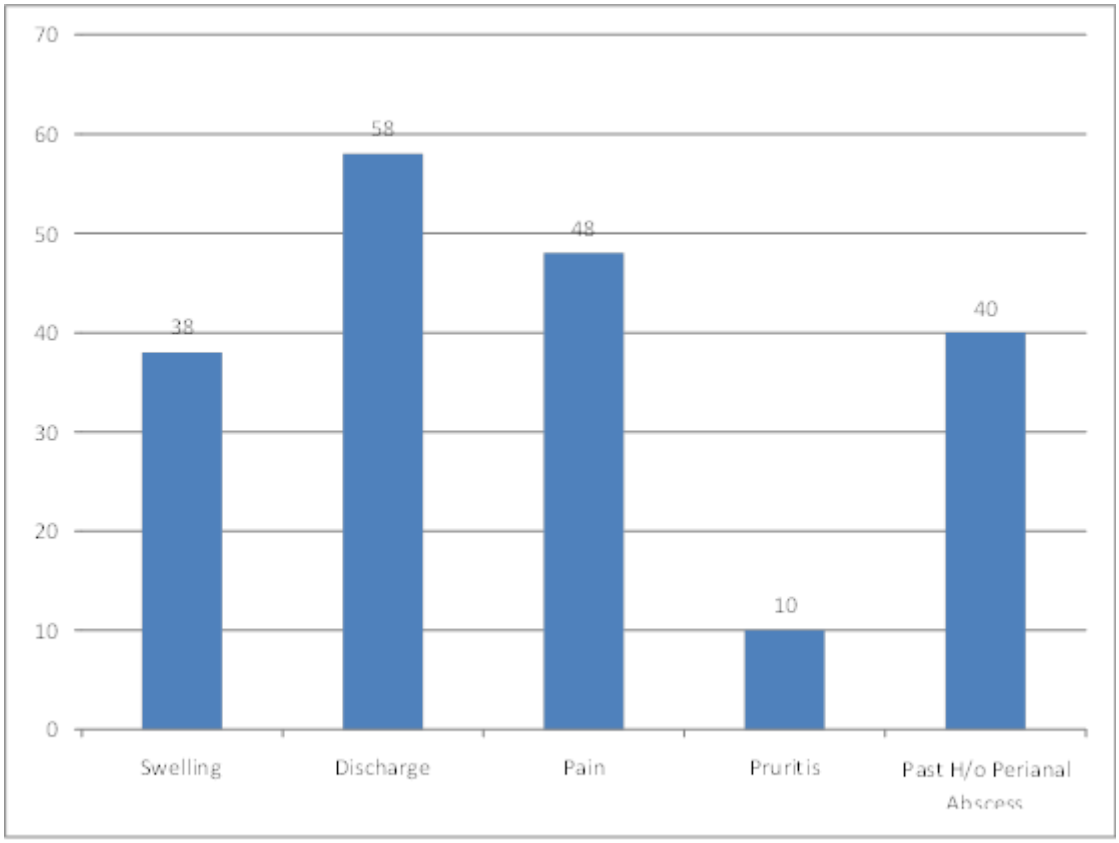

Fig 1: presenting symptoms in Fistula in Ano patients

DISCUSSION:

In this study of 60 cases, 31.66% of the patients were in the age group of 21- 30 years, 30% of the patients in the age group of 31-40 years, 30% of the patients in the age group of 41-50 years and 8.33% of the patients were in age group of 51-60 years.

Mean age of presentation was 24.99 yrs. In Ramanujam *et al.,* (1983) series 65.5% of the patients were in the age group 21-40 years compared to 61.66% in our study, 17.5 % of the patients in the age group of 41- 50 years, 2.9% of the patients were in age group of 51-60 years. In our study, Sex ratio was 3.61:1.In Ramanujam *et al.,* [9]series, sex ratio was 2:1.

In our study 96.66% of patients presented with discharge, 80% of the patients presented with pain , 80% of patients had past history of perianal abscess , 63.33% of patients presented with swelling , 16.66% of patients presented with pruritisani. Similarly in Vesilewsky and Gordon series 65% of the patients presented with discharge, 34% swelling and 24% pain (Vasilevsky, C. A., & Gordon, P. H. 1985).

In our study, among discharge 86.66% of the patients presented with purulent discharge, 6.66% of the patients presented with bloody discharge, 3.33% of the patients presented with serous discharge. Goligher study (Goligher, J. 1984) showed 84% had purulent discharge, 10 % had bloody discharge and 6% had serous discharge.

In this study, 53. 33% of the patients wound healed in less than 1 week, 11.67 % of the patient wound healed in 1 to 2 weeks, 8.33% of the patients wound healed in 2 to 3 weeks, 8.33% of the patients wound healed in 3 to 4 weeks, 18.33% of the patients wound healed in > 4 weeks. In vaselewsky and gordon series (Vasilevsky, C. A., & Gordon, P. H. 1985) 23% patients wound healing was less than 4 weeks, 40% in 5 to 8 weeks. values of our study are statistically significant.

In this study, series patients were followed for a period of 3 months. 2 patients had come with recurrence of fistula in their follow up. Otherwise 90 % had responded with complete healing. Recurrence for those who underwent fistulotomy with multiple external opening low level fistula on an average heals within 6 weeks.

Histopathology examination of excised tract was done, and no malignancy was found in any case.

CONCLUSION

Fistula in ano is a curable disease by the treatment of surgery and higher antibiotics, local antibiotics with good post-operative wound

management, like sitz bath for twice a day without closing the wound.Diagnosis is by history, clinical examination,per rectal examination withdischarging sinus and pain histopathological examination of Fistula In the treatment of Fistula in Ano , Seton technique is best compare to fistulectomy and which is better than fistulotomy.

REFERENCES:

1. Goligher, J. (1984). Surgery of the anus rectum and Colon, London, BailliereTindall, 178 PP.
2. Kreis, M. E., Jehle, E. C., Ohlemann, M., Becker, H. D., & Starlinger, M. J. (1998). Functional results after transanal rectal advancement flap repair of trans-sphincteric fistula. *British journal of Surgery*, *85*(2), 240-242.
3. Kuypers, H. C. (1984). Use of the seton in the treatment of extrasphincteric anal fistula. *Diseases of the colon & rectum*, *27*(2), 109-110.
4. Lee, M., & Decker, G. A. G. (1986). Lee McGregor's synopsis of surgical anatomy. *the large bowel and anal canal,5,72*
5. Loberman, Z., Har-Shai, Y., Schein, M., & Hashmonai, M. (1993). Hangman's the simplifies seton management of anal fistula. *Surgery, gynecology & obstetrics*, *177*(4), 413-414.
6. Milligan etc. (1943). The surgical anatomy and disorders of perianal space, *proc r soc med, 36,* 365
7. Ramanujam, P. S., Prasad, M. L., & Abcarian, H. (1983). The role of seton in fistulotomy of the anus. *Surgery, gynecology & obstetrics*, *157*(5), 419-422.
8. Scoma, J. A., Salvati, E. P., & Rubin, R. J. (1974). Incidence of fistulas subsequent to anal abscesses. *Diseases of the Colon & Rectum*, *17*(3), 357-359.
9. Sm, S. (2003). Fi rin glue for anal fistulas: long-term results. *Dis Colon Rectum*, *46*(4), 498-502.
10. Vasilevsky, C. A., & Gordon, P. H. (1984). The incidence of recurrent abscesses or fistula-in-ano following anorectal suppuration. *Diseases of the colon & rectum*, *27*(2), 126-130.
11. Vasilevsky, C. A., & Gordon, P. H. (1985). Results of treatment of fistula-in-ano. *Diseases of the Colon & Rectum*, *28*(4), 225-231.