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Comparing Ksharasutra (Ayurvedic Seton) and Open Fistulotomy in the Management of Fistula-in-Ano

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Abstract: ***Introduction: Fistula in ano is treatable benign lesions of the rectum and anal canal. Fistula never heals spontaneously and requires surgery to achieve a cure. More surgeons' the reputation was challenged because of the consequences fistula surgery than from other surgical procedures. Careful discussion with the patient about the options and possible risks must be performed preoperatively. Aim: To study the management follow up and outcome in patients between fistulotomy and Seton in fistula in ano at Mahatma Gandhi Medical College, Jaipur. Material and methods: Study was done among 50 fistula in ano patients who attended the OPD in Mahatma Gandhi Medical College, Jaipur. Results: This study show that the healing rates at 8 weeks is similar with both fistulotomy and seton placement but postoperative complications are significantly high with Fistulotomy. Conclusion: Seton is safe, low-cost, ubiquitous, precise, and a cost-effective option for the treatment of fistulae-in-ano. Therefore, recommend it to treating fistulae-in-ano.***

Keywords: Fistula in ano, management, fistulotomy, Seton, surgery

1. Introduction

Fistula-in-ano is the most common anorectal disease that has a chronic granulation pathway extending from the anal canal or rectum to the perianal skin or perineum and is associated with considerable patient discomfort and morbidity. Parks et al. classified fistula based on the location of its tract in relation to the anal sphincter: intersphincteric, transsphincteric, suprasphincteric or extrasphincteric (1). Treatment modalities for fistula-in-ano are lay open operations in the form of fistula tract or Seton treatment (chemical or cutting).

The application of Seton was described by Hippocrates. (2) The use of "chemical" Seton (Ksharasutra) to treat fistula-in-ano is described in ancient Indian inscriptions. (3) A seton is any string-like material that is tied through a fistula tract to cause an inflammatory reaction, which stimulates fibrosis that fixes, cuts, and prevents retraction of the sphincter's continuity when divided. (4) Complex fistulas are where the fistula crosses >30% to 50% of the external sphincter or has multiple tracts or recurrent fistulae. Involvement of the anal sphincter in the treatment of a complex fistula poses a high risk for continence disorders. (5), (6) Usually, most fistulas in ano rectal region are treated with the lay open method, which is effective. (7) Seton have been used to treat anal fistula for hundreds of years; however, in the literature, setons were commonly used only for high or complex anal fistula to prevent faecal incontinence and recurrence. (8) "Lay open" technique, has a prolonged hospital stay; high recurrence rate and anal incontinence. The initial postoperative recovery period is a bit uncomfortable for patients and usually has several days of lost work. Alternatively, Seton application and follow-up is very easy, requires less hospital stay, less pain and a very low complication rate, and above all, the cost of treatment is relatively very low. Other treatment modalities include fibrin glue, Ligation of Intersphincteric Fistula Tract (LIFT), and collagen plug. (9) Ligation of the Intersphincteric Fistula Tract also has promising results. (10) The costs of these other modalities are much higher compared to seton application. The objective of the study was to record the follow-up and treatment outcomes of patients comparing fistulotomy and seton application in in ano fistula at Mahatma Gandhi Medical College, Jaipur

2. Materials & Methods

50 patients who attended the Surgical OPD in Mahatma Gandhi Medical College, Jaipur were included in the study with the under said inclusion and exclusion criteria. These are divided into two groups randomly by lottery method. Group A underwent fistulotomy surgery whereas Group B underwent seton placement. Both groups were under follow up

Inclusion criteria

Patient complaining of perianal discharge along with external fistula opening are evaluated in outpatient department of Mahatma Gandhi Medical College, Jaipur. They are admitted after proper work up and subjected to fistulotomy or medicated Seton

Exclusion criteria

Patients with following conditions were excluded from the study:-

a) Diabetes
b) Patients above 70yrs of age
c) Patients on Immunosuppressant therapy
d) Crohn's disease
e) Acute perianal abscess
f) Patients with major incontinence

3. Results

From January 2023 to March 2023, 50 patients underwent surgical treatment for anal fistula; 25 patients underwent fistulotomy and25 patients underwent and cutting Seton placement without internal sphincterotomy for anal fistula.

All the patients underwent surgery were advised to have high fibre diet, laxative and warm sitz bath. Healing rates have been of 100% and healing times as described in Table 1 ranged from 1 to 4 months.

Transient faecal soiling was reported by 4 patients affected by trans-sphincteric fistula operated by fistulotomy for 2-3 months and then disappeared or evolved in a milder form of flatus occasional incontinence. No major incontinence has been reported also after Seton placement. Fistula recurred in 2 cases of trans-sphincteric fistula treated by Seton placement when compared to 3 cases in fistulotomy.

	Fistulotomy	Seton Placement
< 4 weeks	4	3
4-8 weeks	12	10
>8 weeks	9	12

Complications	Fistulotomy	Seton Placment
Incontinence	4	0
Reccurence	3	2

4. Discussion

Anal fistulas usually need to be surgically opened or placed, treated with excision, fibrin glue or plug. Treatment of fistulas is usually complete obliteration and prevention of recurrence. The surgical approach depends on the type of fistula. The surgery is performed in the lithotomy position under spinal or local anesthesia. External openings are often more prominent and internal openings can be difficult to identify.

Many principles and functions have been developed to assist with this task, Goodsall's rule (11) is the simplest with up to 60% accuracy. The external opening of the rectal fistula is usually easy to find; it will be more difficult to find the internalopening. It is important to find the entire fistula for effective treatment.

People who may develop a rectal abscess may have anal fistulas. The external opening of the fistula is usually red, swollen, and sometimes oozes pus mixed with blood.

The location of the external opening provides clues about the path of the fistula, which may sometimes be needed. However, finding a way to see it often requires a lot of tools and is often not seen before surgery.

A study by Labib AlOzaibi et al. (12) showed that after initial resolution, fistulotomy and sphincteroplasty are very effective in the treatment of transsphincteric and complex fistulas, with a low recurrence rate and no risk of subsequent incontinence. Kronborg (13) reported 9 recurrences after fistulotomy.

5. Conclusion

Seton is safe procedure with minimal postoperative complications. Advantage of seton placement are it is an less invasive procedure, no damage to the sphincter and less hospital stay.

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