

# Comparative Study between Fistulectomy and Seton in Fistula in ANO Regarding Healing and Postoperative Complications

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## ABSTRACT

**Introduction:** Fistula in Ano forms a good majority of treatable benign lesions of rectum and anal canal. Fistula in ano rarely heals spontaneously and requires surgical therapy to achieve a cure. It has been said that more surgeons reputation have been impugned because of the consequences of fistula operations than from any other operative procedures. A careful discussion with the patient regarding the options and potential risks must be performed preoperatively. Aim: To study the management follow up and outcome in patients between fistulectomy and seton in fistula in ano at government general hospital,kakinada

**Material and methods:** study was done among 80 fistula in ano patients who attended the OPD in government general hospital kakinada

**Results:** This study show that the healing rates at 8 weeks is similar with both fistulectomy and seton placement but postoperative complications are significantly high with Fistulectomy.

**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. It has no disadvantage of repeated anesthesia and visits to the operating theater and reduces the morbidity, inconvenience, and cost to the patient. It can be done in spinal or local anaesthesia.

**Keywords:** Fistulectomy, Seton, Fistula, ANO

## INTRODUCTION

Fistula-in-ano is the commonest anorectal diseases which has chronic granulating track running from the anal canal or rectum to the perianal skin or perineum and is associated with considerable discomfort and morbidity to the patient. Parks et al. classified fistula in ano based on the location of its tract in relation to anal sphincter muscle: intersphincteric, transsphincteric, suprasphincteric, or extrasphincteric<sup>1</sup> treatment modalities for fistula in ano are layopen surgeries in the form of fistulectomy or fistulotomy; Seton treatment (chemical or cutting). Seton application was described by Hippocrates.<sup>2</sup> Use of “chemical” Seton (Ksharasutra) as in figure 1 for treatment of fistula-in-ano is reported in ancient Indian inscriptions.<sup>3</sup> Seton is any string-like material which when tied through the fistula tract causes an inflammatory reaction which stimulates fibrosis that fixes, cuts and prevents retraction of the sphincter continuity when it is divided.<sup>4</sup> Complex fistula are where the fistulous track crosses >30% to 50% of the external sphincter or having multiple tracks or recurrent fistulae. Involvement of the anal sphincter during treatment of complex fistula poses a high risk for impairment of continence.<sup>5,6</sup> Conventionally most of

the fistula-in-ano are treated by lay open method, which is effective.<sup>7</sup> Seton have been used to manage anal fistula from hundreds of years; however, in the literature, setons seen in figure -1 were commonly used only for high or complex anal fistula in order to avoid fecal incontinence and recurrence.<sup>8</sup> “lay open” technique, has prolonged hospitalization; high rate of recurrence and anal incontinence. initial postoperative recovery period is a bit uncomfortable to patients and usually has few days work loss. Alternatively, Seton Application and follow-up is very easy, require less hospital stay, less pain, and very low rate of complications and most importantly cost of therapy is comparatively very low. Other treatment modalities includes fibrin glue, Ligation of Intersphincteric Fistula Tract (LIFT) and collagen plug.<sup>9</sup> Ligation of Intersphincteric Fistula Tract also has promising results.<sup>10</sup> The cost of these other modalities are far higher compared to seton application. Study aimed to record the management follow up and outcome in patients in comparison between fistulectomy and seton application in fistula in ano at government general hospital, kakinada.

## MATERIAL AND METHODS

92 patients who attended the surgical opd in government general hospital kakinada were included in the study with the under said inclusion and exclusion criteria. These are divided into two groups randomly by double blinding method. Group A underwent layopen surgery where as Group B underwent seton placement and follow up.

### Inclusion criteria

Patient complaining of perianal discharge are evaluated at outpatient department of government hospital kakinada. They are admitted after proper work up and subjected to fistulectomy or medicated Seton-ksharasutra

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**How to cite this article:** D. Abhivardhan, CH.V.V. Sivakumar, K. Ramarao, K. Balaji, M. Sujatha, L. Ramu. Comparative study between fistulectomy and seton in fistula in ano regarding healing and postoperative complications. International Journal of Contemporary Medical Research 2018;5(5):E10-E12.

**DOI:** <http://dx.doi.org/10.21276/ijcmr.2018.5.5.26>

**Exclusion criteria**

Patients with low perianal fistula, Crohn's disease, acute perianal abscess and patients with major incontinence were excluded.

**STATISTICAL ANALYSIS**

Statistical analysis was done after recording all the data under IBM SPSS, version 20 statistical programme. Results were compared using the chi square test.

**RESULTS**

From 2015 to 2016, 92 patients underwent surgical treatment for anal fistula; 46 patients underwent fistulotomy or fistulectomy and 46 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 in 95.6% of patients treated by Seton. Transient fecal soiling was reported by 8 patients affected by trans-sphincteric fistula operated by fistulectomy 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 three cases of trans-sphincteric fistula treated by Seton placement when compared to six cases in fistulectomy.

**Comparison of Healing**

**Healing rates at 8 weeks**

The chi-square value was 0.766 and the p value was 0.38. The results were not significant at p <0.05. This study showed that the healing rates at 8 weeks is similar with both fistulectomy and seton placement.

	Fistulectomy	Seton placement
<4weeks	8	6
4-8 weeks	24	22
>8 weeks	14	18

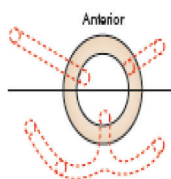
**Table-1:**

Complications	Fistulectomy	Seton placement
Incontinence	8	0
Recurrence	6	3

**Table-2:**



Figure-1:



Goodsall's rule.

Figure-2: Goodsall rule

Chi-square value of 8.76 for incontinence with a p value of 0.003 is significant at p <0.05, giving the inference that incontinence rates are significantly low in seton compared to lay open method (table-2).

Recurrence rate among both the groups don't show any significant difference with the chi-square value 1.10 and p value is 0.29. The result were not significant at p <0.05.

**DISCUSSION**

Anal fistulae invariably have to treated surgically either by laying open or seton placement, LIFT, fibrin glue or plug. Treatment in fistulae is primarily based in obliteration of the entire and prevent recurrence. The mode of surgery depends on the type of fistula and its association with sphincter. surgery is performed in lithotomy position under spinal anesthesia or local anesthesia. The external opening is usually more apparent, and identifying the internal opening can be challenging. Many principles and manoeuvres have been devised to assist in this task, Goodsall rule<sup>11</sup> is the most simple with an accuracy of upto 60% as shown in figure 2.

It is usually simple to locate the external opening of an anal fistula; meanwhile locating the internal opening can be more challenging. It is important to be able to find the entire fistula for effective treatment. People who may have experience with recurring anal abscesses may have an anal fistula. The external opening of the fistula is usually red, inflamed, oozes pus, and is sometimes mixed with blood. The location of the external opening gives a clue to a fistula's likely path and sometimes the fistula can actually be felt. However, locating its visual path often requires various tools, and often times it may not be seen until surgery. Labib Al-Ozaibi et al.<sup>12</sup> study showed Preliminary Seton followed by fistulectomy and sphincteroplasty has shown to be highly effective in treating transsphincteric and complex fistulas with low recurrence rates

(2/56=3.6%) and no risk of subsequent incontinence. Kronborg<sup>13</sup> reported that the recurrence rates following a fistulectomy and a fistulotomy were 9.52% and 12.5%, respectively, during a follow-up period of 12 months. Seton has the advantage of ease of application as a day care surgery, no wound care, change of seton on outpatient basis, no loss of work days to patient, almost negligible side effects.<sup>14</sup> This study showed similar and statistically insignificant healing rate and recurrence in both groups when compared to recurrence rates which is higher in lay open method with seton placement.

**CONCLUSION**

Seton is safe day care procedure with minimal postoperative complications. Advantage of seton placement are it is an Opd procedure, needs no repeated spinal anaesthesia, no damage to the sphincter and no loss of work days.

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**Source of Support:** Nil; **Conflict of Interest:** None

**Submitted:** 01-05-2018; **Accepted:** 02-06-2018; **Published:** 13-06-2018