

THE EFFECT OF SETON CUT THROUGH TECHNIQUE ON CONTINENCE AND RECCURANCE AFTER TREATMENT OF HIGH FISTULA-IN-ANO

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ABSTRACT

Objective: To determine the frequency of incontinence and recurrence after treatment of high Fistula-in-ano with cutting seton.

Material and Methods: This descriptive study was carried out in Surgical unit, Hayatabad Medical Complex, Peshawar from July 2007 to June 2008 and included 20 patients.

After taking history, physical examination and baseline investigations, the patients were prepared with laxatives and rectal washes 24 hours prior to surgery and kept nothing per orally for 6 – 8 hours. All procedures were carried out under spinal/general anesthesia. All patients under went seton cut through procedure and were discharged on next day. Patients were followed up for tightening of seton and for observing complications like incontinence and recurrence, fortnightly till complete healing.

Results: Among total of 20 patients, there were 17 (85%) men and 3 (15%) women. The age range of our study population was from 24-70 years, with a mean range of 41 years. There were 18 trans-sphincteric and 02 suprasphincteric fistulae. The internal opening was posterior in 15, anterior in 2 and lateral in 3 patients. The time taken for seton to cut through the fistulous tract varied from 6 to 10 weeks. The Fistula completely healed up in all patients in 10 weeks time, but 01 (5%) patient developed recurrence of Fistula after six months. Some patients complained of perianal soiling in the initial days, which settled down later on. 02(10%) patients experienced minor incontinence (flatus only) which settled down within 06 weeks of complete wound healing.

Conclusion: Seton cut through technique is safe and effective for high fistula-in-ano, with low incidence of recurrence and incontinence.

Key words: Seton, Recurrence, Incontinence.

INTRODUCTION

Fistula-in-ano is a common perianal condition that is associated with appreciable morbidity and inconvenience to the patient.¹ Fistula-in-ano may be non-specific (idiopathic, cryptoglandular) with infection of the anal gland in inter-sphincteric space as initiating pathology.² However it may be associated with several specific conditions like Crohn's disease³, Tuberculosis⁴, Malignancy⁵, Lymphogranuloma venerum⁶, HIV infection, rectal duplication⁷, perianal actinomycosis⁸, and sacrococcygeal teratoma. Other

causes include trauma, foreign body⁹, radio-therapy and steroid therapy. Various classifications of Fistula-in-ano are available but the most widely used and accepted is Park's classification¹⁰, which divide Fistulae into four groups i.e inter-sphincteric, trans- sphincteric, supra-sphincteric and extra-sphincteric. Other classifications are Malligan Morgan¹¹, Good Sall and Mill, and Thompson classifications. Fistula can cause pain, perianal swelling, discharge, bleeding, skin excoriation and other nonspecific symptoms. Modalities for the diagnosis of Fistula-in-ano include DRE (Digital rectal examination), Anal

manometry, Fistulography, CT, Endosonography and MRI.

Low Fistula-in-ano are treated with laying open technique¹², on the other hand various surgical techniques have been described to treat high fistula-in-ano. These include seton technique¹³, two staged fistulotomy,¹⁴ fistulotomy with covering colostomy, advancement flap procedure¹⁵ fibrin glues and fibrin plug.¹⁶

MATERIAL AND METHODS

This study was conducted in Surgical unit, Hayat Abad Medical Complex Peshawar from July 2007 to June 2008. 20 patients, both male and female, presenting with high Fistula-in-ano which were cryptoglandular in origin were included in the study. Fistulae were labeled as high if the internal opening was above or at the level of Dentate line. Those associated with Crohn's disease, Tuberculosis, Malignancy, lymphogranuloma venerum, HIV infection etc were excluded from the study. After complete history, the perianal area was inspected, which revealed the external opening. The digital rectal examination identified the internal opening. In few doubtful cases, we performed fistulogram, but these were not very informative. Anal endosonography was not available so we advised MRI, (which is gold standard for assessing Fistula-in-ano). After confirming the site, number, tenderness, discharge, induration, position of external and internal openings and the presence of other diseases, we prepared the patients with laxatives and rectal washes 24 hours prior to surgery and kept nothing per orally 6 – 8 hours preoperatively. All procedures were carried out under spinal/general anaesthesia. The seton is introduced through the tract and both ends tightened and dressing applied. The patients were discharged on the next day and advised to come for seton tightening of seton every fortnightly. Patients were followed up until wounds had healed up or a complication occurred.

RESULTS

Among total of 20 patients, there were 17 (85%) men and 3 (15%) women. The age range of our study population was from 24-70 years, with a mean range of 41 years. There were 18 Trans-sphincteric and 02 Suprasphincteric fistulae. The internal opening was posterior in 15, anterior in 2 and lateral in 3 patients. Eight of these openings were situated above the Dentate line and 12 at the level of Dentate line.

During follow up period, five patients showed complete wound healing in 6 weeks, where as in 8 patients, it was complete in 8 weeks. In the remaining 13 patients healing took place by 10th

week. So the time taken for seton to cut through the fistulous tract varied from 6 to 10 weeks. One (5%) patient developed recurrence of Fistula, after 06 months of seton insertion. Some patients complained of perianal soiling in the initial days, which settled down later on, whereas 02 (10%) patients experienced incontinence (flatus only) but fully recovered within 06 weeks of complete wound healing of perianal wound.

DISCUSSION

A seton is typically made from a large silk suture¹⁷, silastic¹⁸, Marsaline¹⁹, rubber or elastic band²⁰, that is thread through the Fistula tract and serves three purposes. It allows direct visualization of the tract, allow drainage and promote fibrosis, while it cuts through the fistula. That is, with time, as fibrosis occurs above the seton, it gradually cuts through the sphincter muscle and exteriorizes the tract. The advantage of using seton is, it is safe, with low incidence of recurrence and incontinence²¹. This statement has been proved by various authors from time to time in papers.

Usually healing after a seton procedure is uneventful, though recurrence may occur in a variable number of patients. Only 01(5%) of our patients had recurrence, a finding which correlates well with other studies. Mac Courty²² in his study reported only 4% recurrence after treating complex high Fistula-in-ano, with cutting seton without preliminary internal sphincterotomy. Yet there are studies which has no recurrence rate, e.g Guerer²³ conducted a study over nine patients with high Fistula-in-ano, reported no recurrence.

Incontinence is another aspect of the outcome after using seton wire for treating high Fistula-in-ano. In our study 02(10%) patients experienced incontinence, that is incontinence to flatus only, but both the patients recovered fully within 06 weeks of perianal wound healing. The incidence of incontinence following seton insertion reported by other studies ranged from 0% to 47% such as Guerer²³ reported no incontinence in his study. On the other hand Isbister²⁴ conducted a study at King Faisal Specialist hospital, reported incontinence in 47% of patients. Similarly in 2008, Chang et al²⁵, conducted a study on 112 patients with complex anal Fistula. They reported incontinence of 24.1 %.

CONCLUSION

Use of seton for high Fistula-in-ano with repeated tightening at two weeks interval is safe and effective, with shorter duration of wound recovery, low recurrence and less continence disorders.

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