

loose Seton in management of high anal fistula.

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Abstract:

Background: The treatment of high anal fistulae needs to meet a balance of cure and continence. There are many surgical treatment options available for high fistula-in-ano. The best surgical operation for high anal fistulas is difficult to define because they have varying cure and incontinence rates. A loose Seton is a loop of flexible material (silastic tube, silk, and nylon) placed through the fistulous track to allow drainage by keeping the external skin opening patent. Some surgeons use the loose Seton to allow drainage and others believe that it promotes healing by inducing fibrosis

Objective: To check the efficacy of loose Seton in the management of high anal fistulas.

Patient and method: A prospective study of 26 patients with high anal fistula managed by loose Seton placement between February- 2009 and February-2010 in 3rd surgical unit, fifth floor, Baghdad teaching Hospital. The seton is removed after 3 months in outpatient clinic, follow up for 6 months.

Results: Out of 26 patients, 23 were males and 3 were females, the male to female ratio was 7.7:1. Peak occurrence was noted between 30 to 40 years. Minor incontinence was noted in two patients, those patients lost control of flatus which persisted for 4 months. No fecal incontinence noticed in any patient. In 21 patient the fistulas were successfully eliminated (Success rate =81%) by loose Seton treatment alone, while fistula recurs in five patients (Failure rate =19%).

Conclusion: The use of one stage loose Seton is safe and effective in the treatment of high anal fistula.

Key words : Seton , high anal fistula.

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Introduction:

An anal fistula is an abnormal track between the anal canal lining and the external perianal skin. Patients with anal fistulas present with perianal discharge of pus, faeces or blood. Other symptoms include itch, pain and recurrent abscesses if skin closes over, (1). References to fistula-in-ano date to antiquity, (2). Despite 2500 years of experience, fistula-in-ano remains a perplexing surgical disease (3). Multiple series have shown that the formation of a fistula tract following anorectal abscess occurs in 7-40% of cases. (4) Physical examination findings remain the mainstay of diagnosis. (1) Radiological examination (fistulography, CTscan and MRI) are of value only in complex cases (5). The division of anal fistulas into low and complex is somewhat arbitrary, with low fistulas encompassing a small amount of sphincter muscle. (4) The laying-open technique (fistulotomy) is useful for 85-95% of low fistulae (i.e., submucosal, intersphincteric, low transsphincteric). (6) The treatment of complex (high) anal fistulae needs to balance the occasional conflicting outcome of cure and continence. There are many of surgical treatment options available for high fistula-in-ano. They include draining Seton, cutting Seton, two stage Seton fistulotomy, fistulectomy, mucosal advancement flap (MAF), fibrin glue, fibrin plug, (7,8,9). The best surgical operation for high anal fistulas is difficult to define because they have varying cure and incontinence rates (10,11,12). A loose Seton is a loop of flexible material (silastic tube, silk, nylon) placed through the fistula track to allow drainage by keeping the external skin opening patent. (13). Draining Setons may have

a slight cutting effect due to downward pressure exerted by each bowel motion. Some surgeons use the loose Seton to allow drainage and others believe that it promotes healing by inducing fibrosis. Incontinence rates after this procedure is low (approximately 1%) and may occur by distortion of the anal canal by fibrosis. (14)

Patients and Methods:

A prospective cohort study of 26 patients with high anal fistula managed by loose Seton placement, between February- 2009 and February-2010 in 3rd surgical unit, fifth floor, Baghdad teaching Hospital.

Diagnosis: history, physical examination, proctoscopy and fistulography had been done to all (26) patients

Pre operative preparation:- The lower bowel should be emptied by an enema about an hour before the operation. Sterilization of the bowel is not necessary as routine measure.

Technique: The procedures were performed in the operating room under general anesthesia, patient in lithotomy position. Probing of fistula tract with metallic malleable probe. Incision from the external opening of fistula to the anal verge done involving skin, subcutaneous tissue, superficial part of external sphincter and superficial part of internal sphincter. Insertion of loose Seton, a non-absorbable suture ("2" "silk) left loosely, and kept insitu for three months.

Follow-up: Twice daily Sitz baths, analgesics, and stool bulking agents (bran) are used in follow-up care. Repeated examinations were carried out every four weeks. At each visit

- The position of the Seton was assessed.
- Wound healing.

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- Detect any recurrence and any problems of fecal incontinence
- The seton is removed after 3 months in outpatient clinic
- Regular follow-up for six months.

Results:

Twenty six patients with high fistula in ano were admitted .
Age incidence: The incidence was low in both sexes below 30 years and after 45 years of age. Peak occurrence was noted between 30 to 40 years. The median age was 37 (range: 25-49)

Sex incidence : out of 26 patients 23 were male and only 3 were females, male to female ratio was 7.7: 1

Distribution of patients according to previous surgical history for Fistula in ano

Table(1) Patients according to previous surgical history for Fistula in ano

Surgical history	No.	%
With	9	34.6
Without	17	65.4

Post operative complications:

Minor incontinence was noted in two patients. These patients lost control of flatus which persisted for 4 months. No fecal incontinence noticed in any patient.

Table (2):No. and percentage of patients with post-operative complication

Complications	Patients No.	%
Flatus incontinence	2	7.7%
Fecal incontinence	0	0%
Total	26	100%

The Out-come of loose Seton method

All patients with 6 months follow-up revealed

Table (3) shows the outcome of treatment

Outcome	Patients No.	%
Completely healed	21	81.0
recurrent fistula	5	19.0
Total	26	100%

• In 21 patients with high fistula in ano, were successfully eliminated by loose Seton treatment alone. (Successful rate =81%)

• In 5 patient with high fistula in ano, were failed to be treated by this method (Failure rate =19%)

Discussion:

Fistula-in-ano is one of the commonly encountered surgical problems. It is believed to originate from an infection of the anal glands. The main principles of management are drainage of infection and eradication of fistulous tract with preservation of sphincter function (15). Conventional laying-open technique in high perianal fistula may involve sacrifice of part or whole of the sphincter muscle impairing continence. It is quite obvious that the more the extent of anal muscle division, the greater the degree of anal incontinence⁽⁶⁾ High complex fistulae can be safely treated with only minor loss of continence using different seton technique^(16,17). Inadequate treatment at peripheral hospitals seems to be the most probable cause of this high incidence of high fistula-in-ano. Both the diagnosis and treatment of high anal fistulae are difficult. Various surgical techniques have been described to treat these fistulae. ⁽¹⁸⁾. The results of this study, demonstrated fistula in ano is affecting many age groups and the data showed, the age groups (31-40) years were higher than other age groups, with male predominance seen in this series are similar to the Seow-Choen F at al and, McCourtney JS at al studies (19) Our study suggests that the majority of anal fistula can be treated successfully with single stage loose Seton (successful rate 81%) alone without second surgery. Most of our patients tolerated the procedure well and were satisfied with the treatment. McCourtney JS et al in a study of 33 patient with loose seton, reported eradication of the fistula tract in 60-78% of cases⁽¹⁵⁾ In our study recurrence rates (19%) were low and disturbance in continence is minor and not long lasting. Abbas MA et al (2008) found in his study Following loose seton use in 68 patient, the reported rate of recurrence is 17% and the rate of any incontinence of stool is 7% ⁽²⁰⁾ Fistula surgery can be complicated by incontinence. In this study no patient developed major incontinence. Two patients (7.7%) developed flatus incontinence and both of them had previous history of multiple operations for perianal fistula. The loss was transient and did not persist in any patients. Postoperatively, some loss of continence and loss of control of flatus has also been reported by others, Williams JG (2001) and Faucheron J-L (1996). found that disturbance in fecal continence in 8% of patients after treatment with loose seton.^(21,13) Increased incidence of developing postoperative incontinence has been observed in patients with previous fistula surgery⁽²¹⁾

Conclusion:

The use of one stage loose Seton is safe and effective in the treatment of high anal fistula

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