



OBSERVATIONAL STUDY OF 50 CASES OF EARLY OUTCOME OF SETON AND VIDEO ASSISTED ANAL FISTULA TREATMENT IN HIGH VARIETY PERIANAL FISTULA:

General Surgery

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ABSTRACT

Background: Fistula is the Latin word for a reed, pipe or flute. Fistula in ano is an abnormal communication, lined by granulation tissue between the anal canal and the skin, which causes chronic inflammatory response. Nowadays, fistula surgery is done as an elective procedure due to patients' discomfort, and problems associated with it. Many surgical techniques are used for the treatment of fistula but there is no gold standard treatment. The aim of our study is to know outcome of SETON & VAAFT for high variety fistula. **Material And Method:** In our study we observed 50 cases of high variety perianal fistula who had undergone SETON & VAAFT. All investigations were done with informed and written consent. Cases were observed for postoperative pain, wound healing, hospital stay and other complications like wound discharge, perianal abscess and recurrence. **RESULT:** In our study we found that, in case of SETON – 5 cases had delayed wound healing at the end of 3 month, 2 cases had perianal abscess and 4 cases were reported to had recurrence. Whereas in case of VAAFT – only one patient had recurrence, no case reported with pain, perianal abscess delayed wound healing and. **Conclusion:** In this study, we observed that VAAFT had advantage over SETON in view of visualization of internal opening and other communicating tracks of fistula with shorty period of hospital stay and better tolerance by patient than other procedures.

KEYWORDS

Perianal fistula, SETON, VAAFT (Video assisted anal fistula treatment)

INTRODUCTION

A Fistula-in-ano, or anal fistula, is a common perianal condition. It is a chronic abnormal communication, usually lined to some degree by granulation tissue, which run outwards from the anorectal lumen (the internal opening) to an external opening on the skin of the perineum or buttock (or rarely, in women to the vagina). It is due to the outlet of the glands blocked secondary to fecal material, foreign body and trauma may result in stasis and infection and abscess can form which can eventually point to skin surface. Patient present with pain/ discharge either purulent or bloody, pruritus ani, bleeding per rectal, diarrhea, skin excoriation, systemic manifestation if it becomes more infected. Fistula-in-ano is more common in men than women.² The disease is more frequent between the third and fifth decade of life.³ Fistula-in-ano classified according to Parks classification into four types: intersphincteric, transsphincteric, suprasphincteric and extrasphincteric while using simplest system of classification to low type (95%) and high or complex type (5%).⁴

The principles of anal fistula surgery are to eliminate the fistula, prevent recurrence and preserve sphincter function.⁵ Any mistake during surgery can have serious consequences including infection and gas and stool incontinence.⁶ A variety of techniques have been described to treat high anal fistula, SETON AND VAAFT are most commonly practiced nowadays. In case of SETON any string- like material which when passed and tied within the fistula track develops gradual transaction of the external sphincter muscle as a result of pressure necrosis with a negligible splitting of the cut ends. The most common problem with this technique is high rates of continence disturbance, prolonged discharge and numerous visits to check and adjust the seton. While in case of VAAFT, it is a minimally invasive diagnostic and therapeutic procedure first done by Professor P. Meinerio in 2006.¹³⁻⁷ In this procedure the fistulous tract is probed with scope and the entire tract visualized till the internal opening. Which is then closed with stitch and the entire length of tract cauterized and scrapped of its infected lining epithelium. Fistula-in-ano is known for its branches'. By using this technique complete removal of fistulous tract is possible. Success rates range from 66.7% to 87.5%.⁸⁻¹² This technique would not be complicated by incontinence, and the 30% recurrence is acceptable.¹⁴

So, the aim of our study is to observe the outcome of both SETON & VAAFT in manner of /view of post operative pain, discharge, recurrence, hospital stay etc.

METHOD:

This is an observational study done in the year 2019-2020 in a tertiary

care center– Surat, Gujarat. It includes 30 cases of high variety Perianal Fistula in age group of 18-60 years, who had undergone SETON / VAAFT in various surgical units. The method for the study included outcome of post operative patient with follow up for Pain, Bleeding, and Discharge from wound, anal sphincter incontinence, recurrence, any other complication. Such patients were studied in detail clinically and investigated after getting informed consent from them. Patients with existing preoperative incontinence, tuberculosis, malignancies, anorectal tumor were excluded.

• OPERATIVE PROCEDURE: -

• SETON

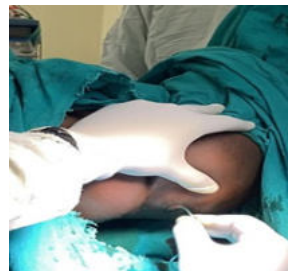


Figure A: Identification Of Fistula Tract

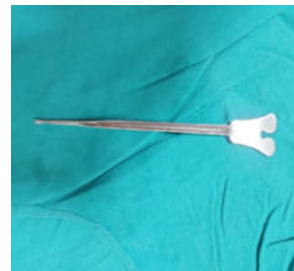


Figure B: Malleable Probe

In this procedure patient is given lithotomy position under anesthesia and fistula probe is passed through the internal opening and the material selected for Seton is (nylon -1) attached with tip of fistula probe. Probe is pulled out of fistula track so that, Seton passes through that fistula. Ends of Seton are loosely tied. After 2 weeks, the ligature will cut through approximately half of the external sphincter and will be quite loose. The wound is curetted and a further Seton inserted in the same track by threading the end of the ligature through the loop tied in the previous suture and then cutting one end of the ligature and pulling the new suture through the remaining muscle. After that Seton pulled down 4- 5 times a day for 3-4 minutes. This pressure causes little necrosis, which cuts off the sphincteric muscle fibers slowly till Seton is completely displaced out. Patients were asked to repeat this pulling down until Seton passed through external sphincteric muscle and reached to the subcutaneous tissue. Then either Seton passed through the skin by continuing the pulling down or was removed with superficial incision of skin and sub-cutaneous tissue under local anesthesia.

VAAFT (VIDEO ASSISTED ANAL FISTULA TREATMENT)

In this procedure we use fistuloscope. It has a removable handle and

two channels one is an optical and another is irrigation channel and we also need monopole electrode, a brush and endoscopic forceps. First in diagnostic phase we visualized the tract by introducing the fistuloscope through external opening. In therapeutic stage fistula wall is coagulated using monopolar electrode introducing through fistuloscope. The necrotic tissues removed using brush. Finally, the external opening excised leaving an open wound for drain. In all cases post-operatively antibiotics given up to 7-10 days. Daily Dressing done. On avg. all patients discharged after 4-5 days.



Figure C: Fistuloscope

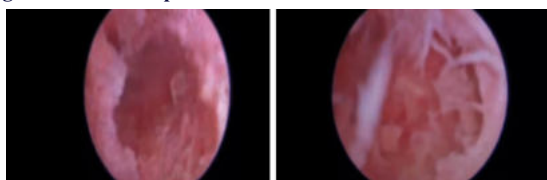


Figure D And E: Intraoperative Image Of Vaaft

OBSERVATION AND DISCUSSION

In our study total 50 cases that underwent fistula surgery (SETON/VAAFT) were taken. Maximum number of patient were seen in age group of (31-40) year and (41-50) year of age group 21(42%) & 12(24%) patients respectively, followed by (51-60) year of age group of 9(18%) patients and (18-30) year of age group of 8 (16%) patients. According to following study, Perianal fistula most commonly occurs in middle age group among this 38(76%) were males and 12 (24%) were females.

TABLE 1:

PRESENTING COMPLAINT	NUMBER OF PATIENTS IN PRESENT STUDY
PAIN	36
DISCHARGE FROM WOUND	50
SWELLING	10
TENDERNESS	20

In our study most common presenting complain was discharge from wound in 50 (100%) cases, which was associated with pain 36 (72%), with tenderness in 20(40%) cases, with swelling in 10 (20%) cases.

TABLE 2:

TYPE OF FISTULA	NUMBER OF CASES
INTERSPHINCTERIC	21
TRANSSPHINCTERIC	25
HORSE-SHOE SHAPE	04

In this study, 34 patients had Posterior Fistula, and 16 had Anterior Fistula. Out of 50 cases, 21 patient had intersphincteric, 25 patients had transsphincteric, 4 patients had horse-shoe type perianal fistula. Out of this seton placement performed in 38 cases, and Video Assisted Anal fistula Treatment performed in 12 cases. In Seton procedure performed in 38 cases, 20 patients were discharged between (0-3)days, 15 patients were discharged between (4-6) days, and 3 patients discharged after 6 days. In VAAFT procedure performed in 12 cases, 8 patients discharged within 3 days, 4 patients discharged between 4-6 days.

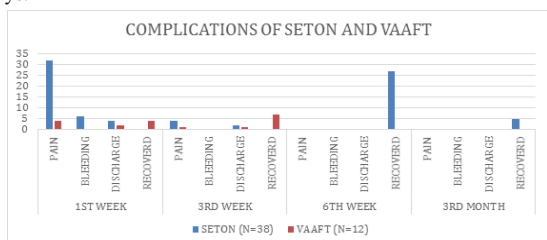


TABLE 3:

RECURRENCE	SETON (N=38)	VAAFT (N=12)
1ST WEEK	00	00
3RD WEEK	00	00
6TH WEEK	02	00
3RD MONTH	02	01

In our study on post op follow up in SETON procedure, on 1st week – 32(84.12%) had pain due to tightness of seton which was relieved by analgesics, 6(15%) had bleeding, 4(10.5%) had discharge from wound and 4(10.5%) patients had pain and 2 (5.2%) patients had discharge on follow up on 3rd week. At 6th week follow up, 2 (5.2%) patients had recurrence and 29(76.31%) were completely healed. 2(5.2%) patients had recurrence on 3rd month and total 34 patients (89.47%) were completely healed on 3rd month.

In our study on post op follow up in VAAFT procedure, on 1st week 4(33.3%) patients had pain, 2(16.6%) had complain of discharge and 4(33.3%) patients recovered on 1st week. On 3rd week 1 (8.3%) patient had pain and 1(8.3%) had discharge from wound and 7(58.3%) patients recovered. 7 (58.3%) patients were completely healed on 3rd week and 1(8.3%) patient had recurrence at the end of 3rd month. In both the procedures anal sphincter incontinence was not seen.

DISCUSSION:

Fistula-in-ano is an abnormal communication between the anal canal or rectum and the perianal skin, which causes a chronic inflammatory response. The most common cause is nearly always by a previous anorectal abscess. The chief complaint of anorectal fistula is intermittent or constant drainage or discharge.

Although many attempts have been made over the decades to treat complex anal fistula, it continues to be one of the most challenging clinical problems in anorectal surgery. Traditional surgical treatments, such as the lay-open procedure and fistulotomy, are effective in the treatment of simple and most distal fistulas, with an almost 100% success rate. However, when they are used to manage complex anal fistula, the high risks of recurrence and damage to anal sphincter function remain serious problem.

Most of the current treatments for complex anal fistula are based on three main principles: correct identification of the fistula tracts and internal opening, complete destruction of the tracts, and preservation of anal sphincter function.

Seton allowed to preserve the majority of internal and external muscular sphincters fibers involved by anal fistula because they permit the drainage of acute inflammation and maintain anal sphincters.

VAAFT is designed based only on these two key points: it provides real-time visualization of the anatomy; therefore, surgeons can properly handle the internal opening and ensure sufficient drainage of the debrided tract.

CONCLUSION:

After studying both SETON & VAAFT we can conclude that both procedures were safe, sphincter saving, with good continence. But VAAFT is effective in dealing with complex anal fistula as it enables direct visualization and treatment of the fistula tract, internal opening and secondary paths and it is less invasive, safe, and has a short post operative recovery period and also it is less painful and provides better tolerance and early postoperative outcome than SETON in high variety perianal fistula.

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