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Assessment Vaaft Versus Fistulectomy in the Management of Anorectal Fistulae: A Comparative Study

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Abstract
Fistula in ano is a frequent perianal illness that causes significant pain for the patient and has a high recurrence rate. For fistula-in-ano, fistulectomy has traditionally been the recommended course of treatment. However, there is a high rate of recurrence, morbidity, and sphincter incontinence after the surgery. The use of VAAFT-video aided anal fistula treatment-is becoming more common among a number of recent treatments. Therefore, the purpose of this research was to determine if VAAFT is more successful than traditional fistulectomy. Martial and Methods: A common perianal condition with a high recurrence rate that produces severe agony for the patient is fistula in ano. Fistulectomy has always been the advised line of therapy for fistula-in-ano. After the procedure, there is a significant risk of recurrence, morbidity, and sphincter incontinence. Among the many new therapies, the use of VAAFT, or video assisted anal fistula therapy, is becoming increasingly widespread. Consequently, the goal of this study was to ascertain whether VAAFT or standard fistulectomy yields better results. There was a male majority in both groups of the 60 patients chosen for the research. In group A, the male to female ratio was 6.26:2. In group B, it was 5:3. The age group of 31-40 years old comprised the majority of patients. In group A, the median age of presentation was 38 years, whereas in group B, it was 40 years. The majority of patients had low anal fistulae, which were followed in order by individuals with high anal and anorectal fistulae. Comparing the VAAFT technique to fistulectomy, the recurrence rates were much lower. Following surgery, there were no problems and minimal postoperative discomfort. High levels of patient satisfaction were reported. Our research revealed VAAFT to be a safe and efficient technique substitute for traditional fistulectomy.

INTRODUCTION

When an abscess grows from an infected perianal gland and bursts into the anal canal on one side and the perianal skin on the other, fistulae are created. Regarding their path through the anal sphincter, fistulae may be classified as subcutaneous, intersphincteric, trans-sphincteric, supra-sphincteric, or extrasphincteric[1]. Fistulae anterior to the transverse line drawn across the anal canal in the lithotomy position, according to Goodall's rule, often have a simple, straight route, but those posterior to the line typically have a convoluted, curved trajectory. It is well known that fistula-in-ano has branches. The chronicity and intricacy of these fistulae provide a challenge to the surgeon. The whole fistulous tract is lay bare during a conventional fistulectomy technique, which causes severe postoperative discomfort, takes longer to recover and has a high recurrence risk of 10%- 45%. Anal sphincter damage that results in incontinence is another significant issue. VAAFT, or video aided anal fistula therapy, is one of the more recent techniques being attempted and the results are encouraging[2,3]. VAAFT has both therapeutic and diagnostic applications. There is no cutting of tissue or opening of the tract during this technique. The process involves minimally invasive techniques such as probing the fistulous tract with a scope, visualising the whole tract up to the internal opening, closing it with a suture and cauterising and scraping the entire tract of its infected lining epithelium. Additionally, localised collections are emptied throughout the procedure. Regarding how they pass through the anal, subcutaneous intersphincteric, trans-supra-and extra-sphincteric sphincters, there are several kinds of fistulae[4]. Fistulae are located anterior to the transverse line drawn across, according to Goods all's rule. Anal canals at the lithotomy position often have a straightforward, linear route, but those that are posterior to that line typically have a convoluted, curved trajectory. It is well known that fistula-in-ano has branches. Because of their intricacy and chronicity, these fistulae will be very difficult for surgeons to treat. The whole fistulous tract is lay bare during the traditional fistulectomy surgery, which causes severe post-operative discomfort, requires a longer recovery period and has a high recurrence risk of 15-40%. Anal sphincter damage that results in incontinence is another significant issue. As a result, a novel approach to fistulectomy known as VAAFT (video aided anal fistula therapy) has shown to be more successful and safe. VAAFT has applications in both therapy and diagnosis. There is no cutting of tissue or opening of the tract during this technique. The fistulous tract is visualised up till the internal opening and the tract is probed with a scope as part of a minimally invasive treatment. Therefore, in an effort to control anorectal fistulas, a comparison between VAAFT and fistulectomy is undertaken. VAAFT has both therapeutic and diagnostic applications. There is no cutting of tissue or opening of the tract during this technique. The process involves minimally invasive techniques such as probing the fistulous tract with a scope, visualising the whole tract up to the internal opening, closing it with a suture, and cauterising and scraping the entire tract of its infected lining epithelium. Additionally, localised collections are emptied throughout the procedure. Thus, this research was created to verify the benefits of VAAFT over traditional fistulectomy and to ascertain patient satisfaction[5,6].

MARTIALS AND METHODS

The purpose of this prospective comparison research was to evaluate the therapy of fistula-in-ano between the more recent VAAFT surgery and traditional fistulectomy. The research, which included roughly 60 patients who visited the general surgery department of Medical College and Hospital, was carried out between August 2014 and August 2015. Each patient was made aware of the process and given their permission. The research design was approved by the hospital ethics committee once it was presented. This research covered all patients who had fistula-in-ano for the first time. Patients with immune-suppressive disorders, supra-sphincteric tract extension, recurrent fistulae, Crohn's disease, TB and anorectal malignancies-all of which manifest as numerous perianal fistulous openings-were not allowed to participate in this research. Thirty patients each were placed into two groups of patients. Surgeons who had completed training for the VAAFT operation and have a minimum of five years of experience doing anorectal procedures were chosen. On the first and second postoperative days, subjective pain was measured using the visual analogue scale (VAS), and the results were recorded[7]. The VAS scale went from 0-5, with 0 denoting no pain and 5 denoting the greatest agony a person had ever experienced. Following their release, every patient was monitored for a year to detect any return of the illness. Any issues that arose both during the follow-up and after the procedure were documented.

Statistical Analysis: In this research, a descriptive statistical analysis was conducted using SPSS 15.0 statistical software (SPSS Inc., Illinois, USA) to analyse the data. To record information and create tables, etc., Microsoft Word and Excel were used. For categorical data, real numbers and percentages were provided along with the results using Mean±SD. ANOVA, Chi-square test and unpaired t test were used to determine group significance. A $P<0.05$ ($p<0.05$) was deemed statistically significant.

RESULTS AND DISCUSSIONS

Among the 60 patients selected for study there was male preponderance in both the groups. Male: female ratio was 6.26:2 in group A. It was 5:3 in group B. Majority of patients belonged to 31-40 years of age group. The median age of presentation in group A was 38yrs whereas it was 40yrs in group B. Majority of the patients had low anal fistulae followed by patients with high anal fistulae and anorectal fistulae in that order. Time taken for surgery in minutes, was assessed for both the groups and it was expressed as Mean±Standard deviation. We noticed that VAAFT required just half of the time required for conventional fistulectomy.

After surgery pain was measured for all patients on visual analogue scale (VAS). For patients who underwent fistulectomy the VAS score was above 3 on first postop day and above 2 on second postop day, whereas, for patients who underwent VAAFT the VAS score was always <1 on first and second postoperative days. Any complications like bleeding, infection and incontinence were noted. 3 cases undergoing fistulectomy, developed complications, in which two of them had postoperative bleeding which was controlled by anal packing and one of them had perianal infection needing additional antibiotics and slough excision. There were no complications in patients who underwent VAAFT. When patients were followed up, there was recurrence of disease in 20% of people operated by fistulectomy, whereas there was no recurrence in group who underwent VAAFT.

The epithelialization of fistulous tracts, the branching and intricacy of fistulous tracts, and the inadequacy of the traditional fistulectomy operation are all factors contributing to high recurrence rates. Since most fistulae cross the sphincter muscles, there is a substantial risk of sphincter damage during a typical fistulectomy, in which the whole fistulous tract is cut and lay open. Patients must endure the pain and discomfort associated with a perianal wound until it heals, which may result in lost productivity. Therefore, the traditional fistulectomy surgery is not advised for the reasons listed above. The nature and manifestations of fistula-in-ano were well covered by Kronborg *et al.* and Farquahasan EL. in their publications on rectum and anal canal operations. A number of more recent techniques, such as foam injection into the tract, seton application, sealing the tract, MAFT (minimally invasive anal fistula therapy), LIFT, VAAFT, etc., have gained popularity[7-11]. In some places, fistula plugging is done. A. Ommer A. Herold A. Fürst *et al.* The success of plugging over traditional fistulectomy was shown in their research, Results of the Gore Bio-A fistula plug implantation in the treatment of anal fistula. Seton application is being used in certain locations in place of fistulectomy. The benefits of seton application over traditional fistulectomy were examined by García-Aguilar J, Belmonte C, Wong DW, Goldberg SM, and Madoff RD in their research, Cutting seton versus two-stage seton fistulotomy in the surgical management of high anal fistula. A few centres have adopted LIFT (ligation of the intersphincteric tract) and studies by Shanwani A, Nor AM and Amri N, titled Ligation of the intersphincteric fistula tract (LIFT): a sphincter-saving technique for fistula-in-ano and Lange EO, Ferrari L, Krane M, Ficherain A, titled Ligation of Intersphincteric fistula tract: a sphincter-sparing option for complex fistula-in-ano, both addressed the benefits of LIFT. However, the drawback of the three more recent techniques-plugging, seton and LIFT-is that not all fistula types can be treated with them[12,13]. The efficiency of fistulas decreases with increasing intricacy. With the VAAFT treatment, fistulas of any kind may be treated[14]. The illness can be eradicated since we can see the fistulous tract and its branches up close. As a result, VAAFT is becoming widely accepted. It is non-invasive and may be used for both therapy and diagnosis[15]. Sphincter muscle cutting does not occur in VAAFT[16]. The fistulous tract is merely probed., the internal aperture is ligated under vision, the whole tract is cauterised and scraped clear of its diseased epithelium, and any abscesses are drained. All of this is done under video supervision. As a result, patients have very little discomfort after surgery, extremely few problems and a very low recurrence rate. In their 2011 research, Meinero P, Mori L*, et al.* determined that the VAAFT approach was advantageous and successful in treating complicated anal fistulas. Video-assisted anal fistula therapy (VAAFT) is a revolutionary procedure that saves the sphincter. There was no evidence in this trial that either therapy affected faecal continence. The decline in anal manometry pressure readings did not correspond with a reduction in continence as measured by the Wexner score. Both groups' Wexner scores significantly improved, with the VAAFT group not showing the anticipated benefit. The results of anal manometry and the faecal-incontinence score were not significantly affected by the presence of an internal anal sphincter defect at follow-up in the current study, which may be explained by the different study populations. However, the presence of an anal-sphincter defect and its size along with mean squeeze pressure were previously found to correlate to faecal-incontinence score32. VAAFT has been linked in the past to an increase in life quality[14]. This research showed that FSR was associated with improvements in quality-of-life measures, even though VAAFT is a minimally invasive procedure. The VAAFT group may have a much greater recurrence rate and delayed wound healing, which might be the cause of this. The efficacy of the VAAFT method was highlighted in the

Table 1: Clinical characteristics and outcomes between fistulectomy versus VAAFT.

Clinical parameters	Group A-30 (fistulectomy)	Group B-30 (VAAFT)	p-value
Age in years	39±2.1	41±3.3	p<0.05
Gender Male/Female	24/6	23/7	P<0.05
Type of fistula low/high/anorectal	18/10/2	19/9/3	P<0.05
Pain on VAS-1ST postop day	4.65±2.3	0.97±0.3	P<0.05
Pain on VAS-2nd postop day	3.10±2.2	0.25±0.2	P<0.05
Complications	5 cases	0	P>0.05
Recurrence	7 cases	0	P>0.05
Operative time in minutes	38.6±3.3	20.3±2.4	P<0.05
Time to return to work in days	9.1±2.6	4.6±0.9	P<0.05
Patient satisfaction	Good-16	Good-25	
Not satisfied-13	Not satisfied-4	P<0.05	

aforementioned prospective comparative research conducted at our centre. Of the twenty-five individuals who had VAAFT, none had problems or recurrence. Almost all of them had very little pain after surgery in comparison to their peers. Thus, our research supported the findings of Meinero P *et al.* on the superiority of VAAFT over traditional fistulectomy[17].

CONCLUSION

VAAFT is superior to standard fistulectomy because to its little postoperative discomfort, almost nonexistent sequelae and low recurrence rates. Therefore, we draw the conclusion that VAAFT is a useful substitute for traditional fistulectomy in the treatment of fistula-in-ano.

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