Original Article

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REROUTING OF HIGH / RECURRENT ANAL FISTULA WITHOUT SETON

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ABSTRACT

Objective: To evaluate a new treatment option in cases of high or complex anal fistulas where either the internal opening could not be outlined or there is recurrence after surgery.

Study Design: Quasi Experimental study.

Place and Duration of study: This study was carried out in Pakistan Naval Ship Hafeez from Jun 2008 to Aug 2011.

Patients and Methods: Thirty seven patients were selected for a rerouting procedure in PNS Hafeez. The selection criteria included patients with a high or a complex fistula who had previous surgery but had recurrence of their condition. Complex fistulas, tuberculous fistulas, fistulas with two or more external openings & patients with a recurrent fistula who subsequently were found to have a low fistula were excluded from the study.The lower part of the tract was dissected, rerouted and brought out through the anal canal. The excess tract was excised and the cut end was sutured with the anal canal mucosa, thus converting an external fistula into an internal one, where the secretions from it can be retained by the external anal sphincter, thus preventing constant soiling.

Results: Average age was 37 years. Thirty (81%) patients were males. Follow up period was 6 months. Tuberculosis and malignancies were ruled out. The over all success rate was 86.5%.

Conclusion: Rerouting of high or recurrent anal fistulas, though not the ideal procedure, can be a useful option in cases where either the internal opening cannot be found or there has been a failure of conventional procedures. It does not eradicate the problem, but prevents constant uncontrolled discharge, which is the main concern of the patient.

Keywords: Fistula in ano, Recurrent, Rerouting.

INTRODUCTION

A fistula-in-ano is an abnormal communication between the anal canal or rectum and the perianal skin. However, there may be no internal opening, there may be no external opening, and the track itself may be very complex[1].

There are four types of primary tracks, 1. Inter-sphincteric, 2. Trans-sphinctric, 3. Extra-sphincteric, and 4. Supras-phincteric[2]. The most common cause of fistula in ano is anal gland sepsis. A perianal abscess if drained late or inadequately, results in a fistula in 50% of cases[3].

Most fistulas are simple (minimal involvement of the external sphincter muscle) and classified as low, trans-sphincteric and intersphincteric fistulas. The traditional approach to treatment is primary fistulotomy. Fibrin sealant injected into the fistulous tract is another option. No randomized trials or large studies have compared outcomes from these procedures.

A complex fistula refers to those fistulas that have a high risk of treatment failure and cannot be safely treated by routine fistulotomy.

The traditional treatment of high and complex fistula in ano consists of internal sphincterotomy and insertion of a cutting seton is associated with a risk of faecal incontinence[4]. A recent advancement has been the use of fibrin glue and fistula plugs, but these methods are useful only in low fistulas. A recent study shows a moderate success rate for treatment with fistula plugs. The complex nature of the fistulae selected may be the reason for the low success rate[5].

Patients should be observed for a minimum of 6 months following the procedure before determining a treatment failure or success. The most concerning potential complication of a fistulotomy is incontinence from procedure-related damage to the external

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anal sphincter[6]. The divided muscle fibers retract, and the result is solid fecal, liquid fecal, or gas incontinence. The reported rates of incontinence are highly variable, ranging from 0 to 82 percent[7,8].

PATIENTS AND METHODS

This quasi experimental study was carried out in Pakistan Naval Ship Hafeez from Jun 2008 to Aug 2011.

The selection criteria included patients with a high or a complex fistula who had previous surgery but had recurrence of their condition. Complex fistulas, tuberculous fistulas, fistulas with two or more external openings and patients with a recurrent fistula who subsequently were found to have a low fistula were excluded from the study.

Thirty seven patients were selected for a rerouting procedure. Preoperatively, fistulogram (Fig.1) and MRI were used to outline the fistula tract in all cases of recurrent fistulas.

The procedure involved dissection of the fistula track which was cored out, taking care not to breach it. The upper part was left as such, the lower part was then, rerouted and brought out through the anal canal, through the internal sphincter. The excess track was excised and the cut end was sutured with the anal canal mucosa with an absorbable suture (vicryl 2/0), thus converting an external fistula into an internal one, where the secretions from it can be retained by the external anal sphincter, which prevents constant soiling (Fig 2a,2b,2c,2d).

Data was analysed using SPSS version 15. Descriptive statistics were used to describe the data.

RESULTS

Mean patient age was 37 years (range 19–55 years). Thirty (81%) were males while seven (18.9%) were females. All patients were followed up post operatively for upto 6 months, for recurrences. All fistulas were submitted for histopathology, to rule out tuberculosis and malignancies. The over all success rate was 86.5% with 3 recurrences, one case of flatus incontinence due to repeated surgeries, excessive scarring and sphincter damage and one abscess formation which was resolved with treatment.

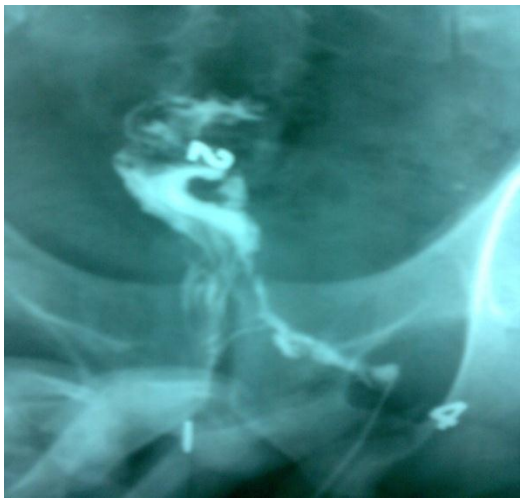

Fig.1: Fistulogram

Fig.2a: External opening of a high recurrent Fistula in ano

Fig.2b: Fistula track dissected out

Fig.2c: Fistula track being rerouted through anal canal

Fig.2d: Final Result

DISCUSSION

Surgery for high fistula is often unrewarding, with a high failure rate.The goal of the treatment is to eradicate sepsis without sacrificing continence[10]. The different surgical options include fistulotomy, fistulectomy which allows better definition of fistula tract including secondary tracts, but can damage the sphincter complex. Recently Video Assisted Anal Fistula Treatment (VAAFT) has been introduced, but the equipment is expensive. Cutting setons are used to convert high fistulas into low without damaging the sphincter, as the enclosed muscle is gradually severed and does not spring apart and the site of tract is replaced by a thin line of fibrous tissue[11].

In the technique under study, the lower part of the tract is dissected out, taking care not to make any perforations in it, this part is then rerouted through the anal canal above the external sphincter, the lower excess tract is cut and the edges are sutured with mucosa of the anal canal with an absorbable suture. This creates an internal fistula and the soiling of the clothes is prevented as the secretions are passed out along with the faeces at the time of defecation.

This option can be safely exercised when the fistula is either deemed to be high or there is recurrence of the fistula after fistulotomy or fistulectomy.

The use of antibiotics has no effect on the healing of the wound post operatively[12]. The diagnosis of high fistula can be made by anoscopy and digital examination as the indurated tract is often palpable. While the external opening is easily visible on inspection, identification of the internal opening is often challenging[9]. Fistulogram or MRI which can outline the track and the level of the internal opening.

CONCLUSION

This is the first time this technique has been used as no reports could be found in literature already published. The drawbacks include incontinence and abscess formation, if the track is breached, however this procedure carries lesser morbidity than a colostomy of multiple surgeries as is sometimes required in this case.

Surgical rerouting of high fistula in ano although is not the ideal treatment for a high fistula can be used as an alternative in cases of recurrence or where the internal opening cannot be defined. However more research needs to be done before this procedure can be adopted as a standard practice for the treatment of anal fistula.

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