Management of fistula in ano with a steel wire cutting seton

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ABSTRACT

Background and Objectives: Fistula -in- ano is one of the commonly encountered surgical problems. Most of these fistulae develop after drainage of an anorectal abscess. Many surgical procedures have been described in literature to treat high type fistula in ano and this reflects the lack of an ideal one, the one that is expected to carry the minimum rate of recurrence, sphincter incontinence in addition to patient's compliance and satisfaction.

Methods: This is a prospective study aimed to review the results of a modified surgical procedure adopted to treat high type fistula in ano, carried between Feb.1995 and Dec. 2005.

Results: Eighteen patients were included in this study, sixteen of them were males with two females, and the male to female ratio was 8:1. The incidence was low in both sexes below 20 years and above 50 years of age. Peak occurrence was noted between 20 to 40 years.

INTRODUCTION:

Fistula -in- ano is one of the commonly encountered surgical problems. Most of these fistulae develop after drainage of an anorectal abscess. Drainage of an anorectal abscess results in cure for about 50% of patients. The remaining 50% develop a persistent fistula in ano other rare causes include trauma, crohn's disease, malignancy, radiation, TB, actinomycosis and Chlamydia, need not to be overlooked. Different classifications have been put, which categorize these fistulae into low or high, simple or complex, or according to their anatomy: intersphincter, transsphincteric, suprasphincteric and extrasphincteric. High fistula in ano is far less common than low type. Low fistulae in ano (low intersphincteric and low transphincteric) are the commonest anal fistulae and can easily be treated by laying-open technique (fistulotomy) and primary fistulotomy and occlusion of the internal ostium, fistulotomy with primary repair of the sphincter, endorectal advancement flaps, anocutaneous advancement flaps, repair of fistula using fibrin adhesive glue, re-routing the fistula. The cutting seton consists of a suture or rubber band that is placed through the fistula and intermittently tightened in the office. This study helps in evaluating this method using stainless steel wire Seton.

MATERIALS AND METHODS:

This is a prospective study which was conducted during the years 1995-2005. Patients with low type anal fistulae were excluded from the study. The number of patients with high type fistula was 18 of them 2 were females and 16 male, their age ranged from 20 years to 59 years (the average age 36y). History regarding mode of onset, duration of illness and any data referring to previous disease including

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Crohn’s disease, ulcerative colitis, tuberculosis, and malignancy, are obtained. Three patients were suffering from recurrent fistulae after surgery. Two patients were hypertensive, and three patients were diabetic. A thorough discussion about the procedure is made with each patient, and his, her informed consent along with his, her address and phone no. are obtained. Proctoscopy is performed routinely to exclude any abnormality, and to identify the internal fistula opening. Under local anesthesia with or without pudendal nerve block, the external opening of the fistula is probed gently and the internal opening is found during digital rectal examination or by injection of hydrogen peroxide through the external opening of the fistula. A segment of stainless steel wire is attached to the probe which is then withdrawn through the internal opening. The two limbs of wire thus obtained are threaded to a segment of soft rubber tube it’s length equals to the distance of the external opening from the anal verge (usually 2-7cm), and a hole is created at it’s centre, the rubber tube serves to protect the skin from pressure of the wire while the hole facilitate twisting the wire ends together. The patients are informed to be reported at weekly intervals for extra twisting of the wire. Finally the wire will come out after a time. To decrease the numbers of twists, after few subsequent examinations when the internal opening seemed to be dislocated to a new lower position, at the anal sphincter, a fistulotomy is performed under local anesthesia.

**RESULTS:**

Eighteen patients were included in this study, sixteen of them were males with two females, and the male to female ratio was 8:1. The incidence was low in both sexes below 20 years and above 50 years of age. Peak occurrence was noted between 20 to 40 years. Incidence according to the age is shown in Table 1.

<table>
<thead>
<tr>
<th>Age group</th>
<th>No. of patients</th>
<th>%age</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-10 years</td>
<td>1</td>
<td>5.55</td>
</tr>
<tr>
<td>30-21 years</td>
<td>5</td>
<td>27.77</td>
</tr>
<tr>
<td>40-31 years</td>
<td>7</td>
<td>38.89</td>
</tr>
<tr>
<td>50-41 years</td>
<td>3</td>
<td>16.66</td>
</tr>
<tr>
<td>60-51 years</td>
<td>2</td>
<td>11.11</td>
</tr>
</tbody>
</table>

The number of weekly twists ranged from 4-7. Thirteen patient developed increase discharge from the fistula during the first week (72.2 %), this is explained to be due to better drainage. Only three patients (16.7%) developed transient minor incontinence (incontinence to flatus), the worst disappeared after 8 weeks. No permanent incontinence is seen. One patient developed recurrence (5.55%) four months after the last (fifth) session of treatment.

**DISCUSSION:**

High fistulae are rare. Both the diagnosis and treatment of high anal fistulae are difficult, so various surgical procedures have been described to treat these fistulae. Laying - open technique in high fistula in ano may involve sacrifice of part or whole of the external sphincter muscle results in impairing continence, it is quite obvious that the more the extent of anal muscle division ,the greater the degree of anal incontinence. Seton fistulotomy either performed in two stages (two-stage fistulotomy) or using (cutting Seton) which has high success rates.
Seton) method using stainless steel wire. The advantages of this method are: It is easily handled and easily re-twisted at weekly intervals. It does need neither general anesthesia nor admission to hospital, it is an outpatient procedure. It carried low recurrence rate (5.55%) which is comparable to those obtained when other materials (rubber or silk) are used (8.34%)23, and when two staged fistulotomy with seton is followed (8%)7, (8.5%)23.

Three patients developed transient minor incontinence (16.7%), in comparison to (two-stage) Seton fistulotomy (50%)23.

REFERENCES:

10. Parkas S, Lakshmiratan V, Gajendran V.

بتسمة الطريقة اعلاه ولكن هنا يتم ربط السينتوش بشده أكثر. يتم زيادة هذه الشدة تدريجيا كل فترة تقارب الأسبوع. تدريجيا كل فترة تقارب الأسبوع.

طريق البحث: خلال فترة الدراسة تم اتباع الأساليب الثنائية (السنين الفاصلة) ولكن مع بعض التعديلات وهي: لقد تم الـ أغواء المرحل.

البحث: طرق: 第二种方法的使用. استعمال مادة (steel wire) فـ جزء الأسلوب الفاصل من السينتوش. استعمال مادة (steel wire) لـ جزء الأسلوب الفاصل من السينتوش. وهي مادة تميز بسهولة السيتون والأرور وتكارز البرم أو العكس. استخدام جزء من انبوب ممواد مثل بطول (2-7 سم) لتغليف السلك الملامس لـ حذف منطقة حول الشرج. شملت هذه الدراسة 18 مريض وتراروت مدة علاجهم بين 4-8 أسابيع، وتم متتابعتهم لفترات متداولة تراوح بين 4 و24 شهرا.

النتائج: كانت مشجعة بوضوح وهي كالآتي: حالة كوس واحدة (رجوع الناسور)، سلس المقعد (عدم السيطرة على الخراج). البسيط والمؤقت عند ثلاثة مرضى فقط.

الاستنتاجات: لم تثبت حصول سلس معتم شديد أو دائم عند جميع من ممثلي الدراسة. وهذه النتائج مقارنة بالدراسات الأخرى التي أجريت لـ نفس المرضى تعتبر مشجعة جداً. بقي ان نعرف ان هذا الإجراء الجراحي في جميع الحالات قد تم في العياده الجراحية الخارجية.