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Surgical Treatment of Anal Fissures in Outpatients

Summary

Thirty-five patients with chronic anal fissures were treated as outpatients by lateral sphincterotomy under local anaesthesia with satisfactory clinical and manometric results.
(Keywords: Anal fissures, lateral sphincterotomy, manometry)

Résumé

35 malades présentant des fissures anales chroniques furent traités, en ambulatoire, par sphinctérotomie latérale, sous anesthésie locale. Les résultats cliniques et manométriques furent satisfaisants.
(Mots clés: Fissures anales, sphinctérotomie latérale, manométrie)

Resumen

Treinta y cinco pacientes con fisuras anales crónicas fueron tratados con esfinterotomía lateral, como pacientes amulatorios con anestesia local, con resultados satisfactorios clínicos y manométricos.
(Palabras clave: Fisuras anales, esfinterotomía, manometría)

Introduction

Fissures are oblong slits in the anal mucosa which go up the anal canal to the dentate line and present a relative hypertrophy of one of the papillae in the apical portion. Seventy percent of the cases are seen in the posterior and 15% in the anterior portion. Eight percent are found in both anterior and posterior positions, while 2% are seen laterally, these often being associated with an anterior or posterior fissure. In women 20% of the fissures are anterior, whereas this occurs in only 10% of men [9].

It is believed that constipation determines anal fissures and the consequent stool-induced trauma provokes painful small lesions of the mucosa. The pain brings about spasms of the internal sphincter which triggers off a vicious circle. The protracted muscular contraction prevents healing of the fissure and determines the chronic lesion. This theory is supported by anorectal manometry which demonstrates above normal pressure in the sphincter area of most patients with anal fissures, so confirming the important role of spasm in the aetiology of this disease.

If the ulcer is grainy, bleeds easily, has oedematous edges and at digital exploration the sphincter spasm sharpens the pain, the fissure is recent and can be treated medically or by dilatation. If there is an external skin tag corresponding with the lesion, and the internal sphincter fibres present little bleeding and the lesion edges are thickened, then the fissure is chronic. Medical treatment is ineffective and surgery is required.

Initial medical treatment causes a temporary remission of the symptoms and consists of administration of local anaesthetics, analgesics and anxiolytics. Hot baths and application of Hegar's anal dilatators stop the painful spasm of the internal sphincter temporarily and favour healing of the lesion. All these therapeutic aids often serve only to prolong the suffering of the patient as the majority of fissures are recurrent.

The decision to operate depends on the associated complications such as hypertrophic papillae at the dentate line which turn into fibrous pseudopolyps and at times bend over into the ulcer bed, so aggravating the pain.

Another is the skin tag which is liable to become inflamed and can lead to the formation of a microab-

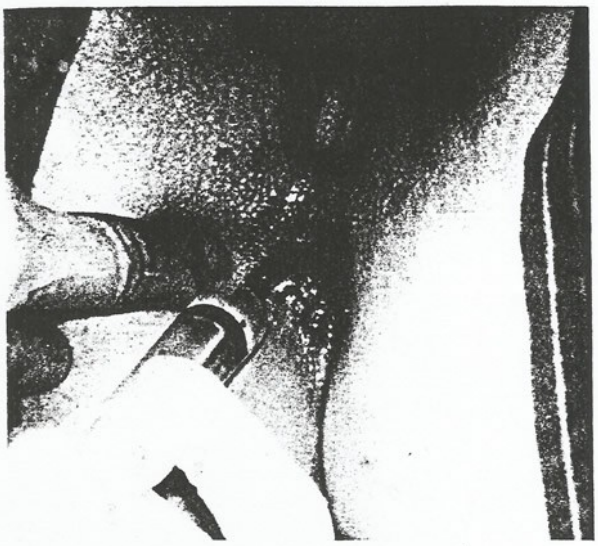

Fig.1: A G-25 needle is introduced into the intersphincteric space

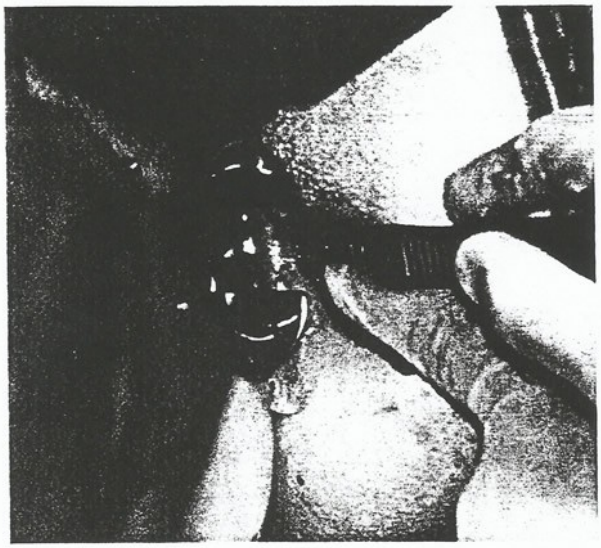

Fig.3: After exposing the sphincter margin a very small cut is made on the margin of the anal mucosa with the scalpel

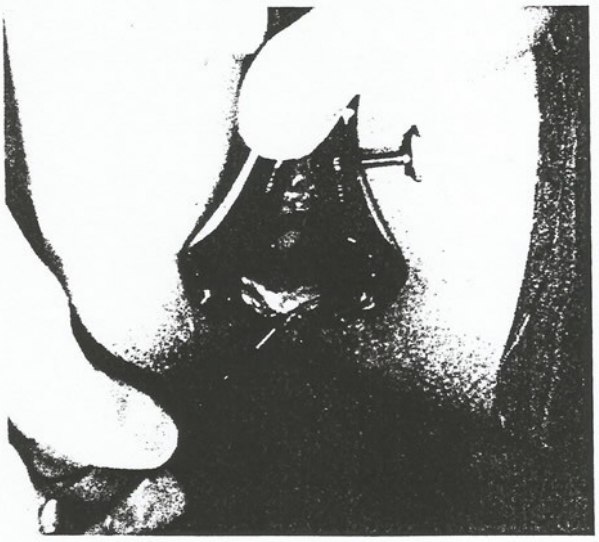

Fig.2: Anal dilatator in situ

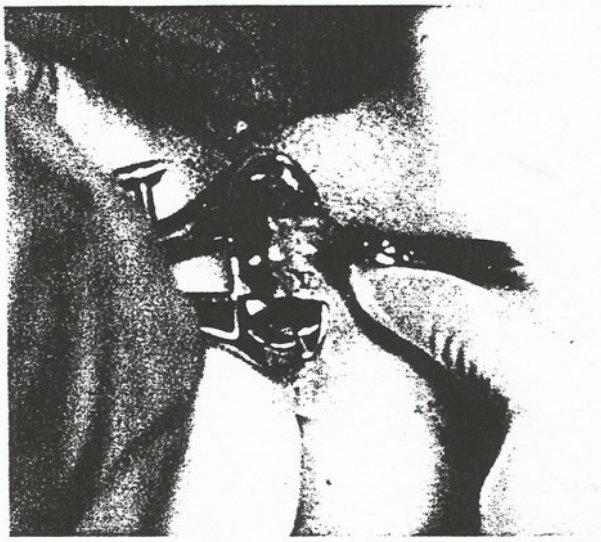

Fig.4: Careful handling of the scissors up to the intersphincteric space with only minimal splitting

scess with a fistula in communication with the lesion. Demonstration and quantitative analysis of the sphincteric hypertonia by manometry has shown the necessity for surgical treatment to resolve the sphincter spasm and so avoid recurrence.

Anal stretching was suggested by Lecomier last century. However, the high number of recurrences six months postoperatively stopped this therapy as it was believed that the risk of complications and anal incontinence was too great.

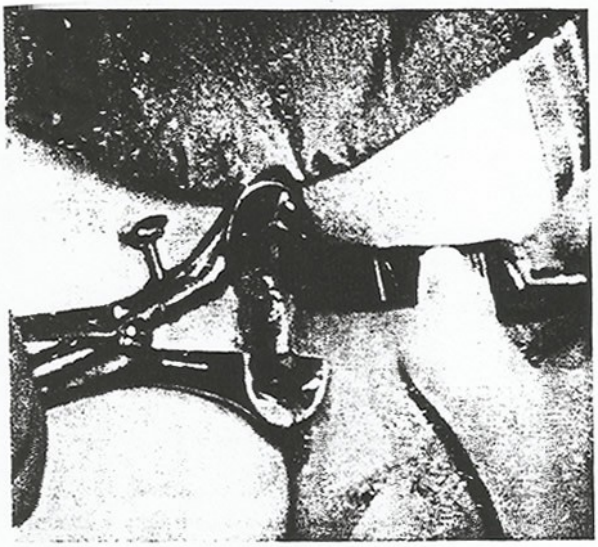

Fig. 5: Inspection of the result of treatment

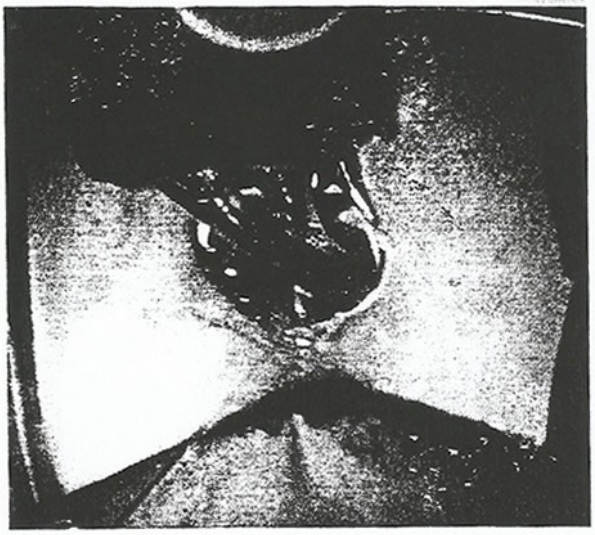

Fig. 7: Excision of pseudo polyps

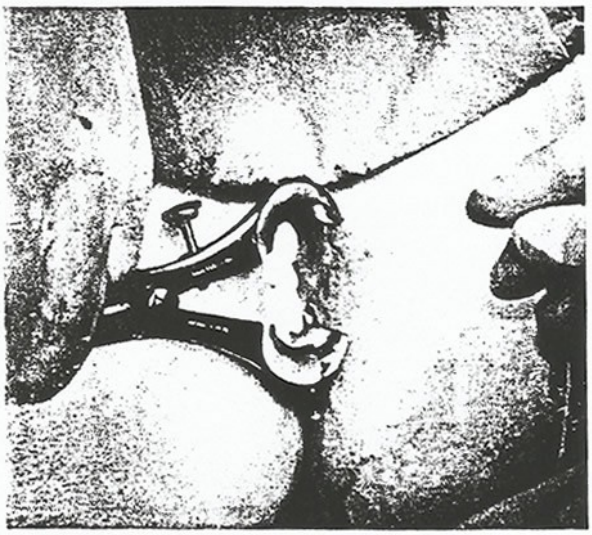

Fig. 6: Wound closure by continuous sutures

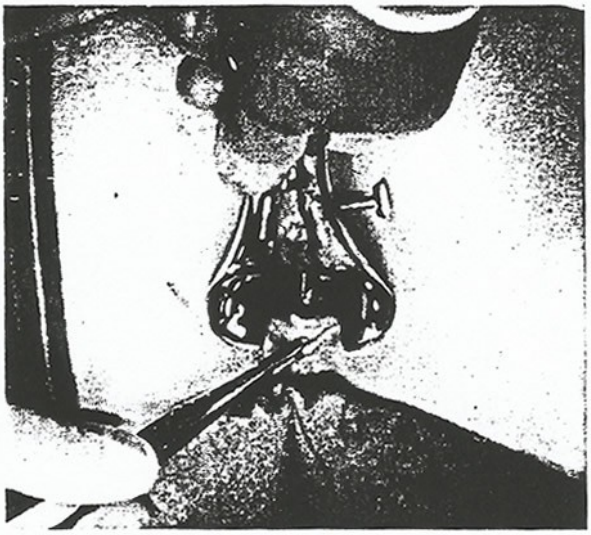

Fig. 8: Final control

Gabriel (1950) and Eisenhammer (1951) first associated posterior sphincterotomy with surgical removal of anal fissures. Although this surgical procedure cured the disease, it caused frequent complications such as the formation of small abscesses and fistulae due to the rapid covering by anal mucosa and formation of small cavities.

In 1967 Hardy noted an area with lower tone and frequent loss of liquid and mucus at the incision site on the posterior canal and proposed a technique of lateral

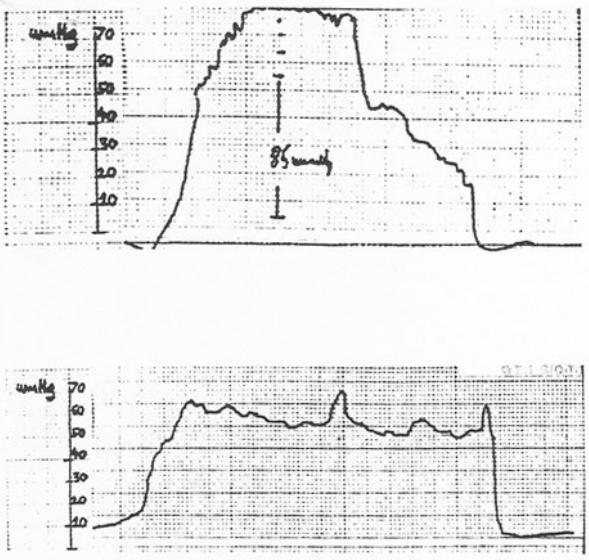

Fig. 9: Manometry before and after surgical treatment

sphincterotomy which has been universally adopted. In the immediate postoperative period both closed and open techniques stop the muscular spasm and pain, both spontaneously and after defaecation. This method consists in identifying the anal margin of the internal sphincter by gently pushing the point of a forceps into the intersphincteric plane with the patient in the lithotomy position. The perianal skin is cut at three o'clock with a narrow bladed scapel and then the cutting edge is turned towards the anal canal lumen taking care not to cut the mucosa. Then the muscle is sectioned up to the dentate line.

Patients and Methods

We treated 35 patients in the outpatients clinic, 16 males and 19 females between 19 and 76 years of age. All patients underwent preoperative sigmoidoscopy and manometric examination. Sphincterotomy is contraindicated in patients with normal or reduced sphincter pressures since it can provoke incontinence. The preoperative sphincter pressure in all our cases was above 80 mm Hg (normal reference values using our recording systems are 60 ± 10 mm Hg).

The patient was put in the lithotomy position (Figs. 1,2,3,4,5,6,7) and a 25 G needle inserted into the intersphincteric space to the right and left of the anal opening. Anaesthesia was obtained by slow injection and did not cause excessive pain. A 22 G needle was then introduced into the intersphincteric space up to the levator muscles and 4 – 5 ml of anaesthetic was injected bilaterally while the needle was being extracted. In some cases a small quantity of anaesthetic was injected into the intersphincteric space just under the fissure to achieve complete numbness.

No pain was felt by the patient when the anal dilatator was introduced. After exposing the sphincter margin with a scalpel a very small cut was made on the margin of the anal mucosa. Small blunt nosed scissors were inserted and minimal splitting of the anal canal mucosa performed on the luminal side of the internal sphincter in the intersphincteric space. The internal sphincter fibres were cut by retracting and rotating the slightly open scissors 90°. We then stitched the skin using continuous sutures.

We usually removed the skin tag or the pseudopolyp at the fissure apex if they were large since the former can form a large skin tag and the latter could protrude from the anal opening after defaecation so causing it to stretch and twist on its pedicle.

We follow the British method of not performing any preoperative preparation of the colon in order not to delay defaecation stimulation. Neither do we carry out anal canal medications since they may be painful. The patient is discharged as soon as the anaesthetic has worn off. No antibiotic treatment is administered and the only recommendation to the patient is to have two or three hot sitzbaths a day for a few days using chlorinated solution.

We prefer this apparently more complicated method since it avoids accidental lacerations of the mucosa at incision of the muscle. These lacerations call for stitches on the anal canal which could infect the small recess which forms in the diastasis of the cut fibres. In addition on sectioning, the scalpel could accidentally cut some of the subcutaneous fibres of the external sphincter with consequent scars and slight incontinence.

Discussion

Our experience showed that lateral sphincterotomy carried out under local anaesthesia is both easy to perform and well accepted by the patient. In 90% of the patients pain caused by the manipulation during surgery disappeared within a few hours and only 10% reported pain lasting between 24 and 36 hours postoperatively. In the latter cases administration of analgesics and hot sitzbaths stopped the pain.

Our patients who underwent sphincterotomy all showed complete recovery. Manometric examination performed one and six months after surgery confirmed a marked reduction of the sphincteric pressure (about

30% less than preoperative values) which ranged from 45 mm Hg to 65 mm Hg. No patients presented perianal infective complications and the few cases of bruises disappeared spontaneously.

Therefore, we believe that lateral sphincterotomy can resolve anal fissures especially if the clinical indications are respected. The operation carried out under local anaesthetic not only allows simple sphincterotomy but also the removal of any other lesion of the anal canal. It must be emphasised that this type of anaesthetic technique reduces hospitalisation costs and loss of working days of the patient. All these reasons motivate us to continue treating anal fissures in the outpatient clinic using the lateral sphincterotomy technique.

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