Short Communication

THE 'BOSNIA SCALPEL' FOR INTERNAL ANAL SPHINCTEROTOMY

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SUMMARY: Most surgeons prefer the closed internal anal sphincterotomy for correction of chronic anal fissure. This operation however is quite difficult to perform using the standard scalpel. We therefore designed and built a new, sickle shaped incisive part of instrument to achieve this operation in a complete manner and with much less trauma to the surrounding tissues.

It is thought that using this new scalpel (BOSNIA SCALPEL) will make the procedure easier and reduce postoperative complications. The operation will at the same time be less time consuming and much safer.

Key Words: Anal sphincterotomy, surgical technique, surgical instrument.

INTRODUCTION

Anal fissure is a linear ulceration commencing at, or just below, the pectinate line and extending distally to the anal verge (1).

Anal fissure is usually encountered in young or middle-aged adults. The lesion occurs with equal frequency in men and women. The precise etiology of anal fissure is definitely unknown but is most commonly attributed to trauma from the passage of a large, hard stool. It can also develop after acute episodes of diarrhea (1,2) or bowel wall infections.

Accompanying the chronic forms of anal fissure are a sentinel pile and hypertrophied anal papilla. Chronic anal fissure is particularly resistant to conservative therapy. Indications for operative management include persistent pain, lack of healing, and recurrence. Lateral anal sphincterotomy is currently considered the procedure of choice (1,3).

The traditional method of internal sphincterotomy using the posterior approach was introduced by Eisenhammer in 1951. This operation was later revised by the lateral sphincterotomy incision (Eisenhammer, 1959). This last approach was further modified by Notaras (1969, 1971) (3).

DESCRIPTION

A new instrument is developed to achieve complete and less traumatic internal anal sphincterotomy.

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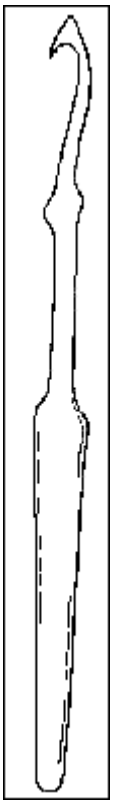

Figure 1: The Bosnia Scalpel.

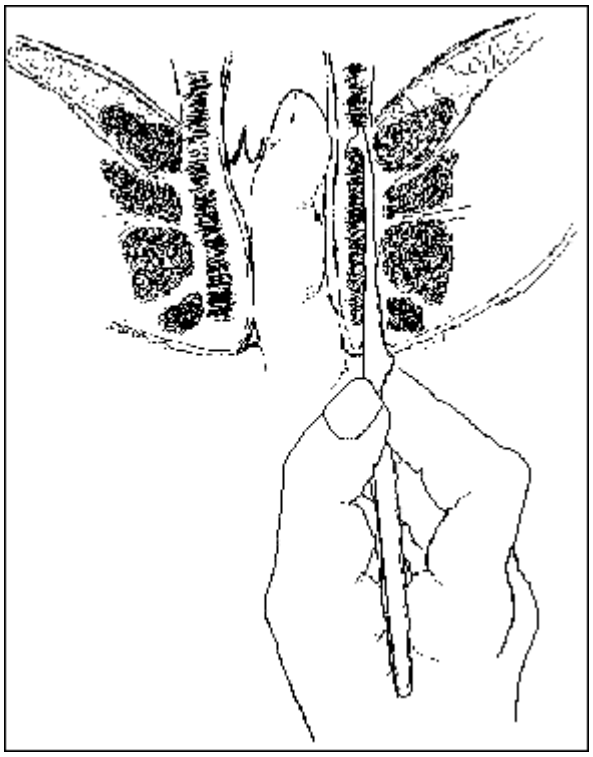

Figure 2 : While the index finger of one hand is inserted into the anal canal and being placed on the dentate line, the other hand manipulates the scalpel and cuts the internal sphincter with a single movement.

Scalpel is an instrument including a non incisive, triangular shaped tip, that becomes pointed enabling the operator to introduce it through the tissue, and an incisive part that has a shape of sickle (Figure 1).

TECHNIQUE

The operation is performed under local or general anesthesia. Patients are prepared for the operation as defined by Notaras (2). A suitable bivalved anal speculum is inserted into the anal canal and opened to give the anus a slight stretch. The internal anal sphincter is then felt as a tight band around the blades of the speculum by the left hand index finger of the surgeon inserted into the anal canal. The Bosnian scalpel is now introduced vertically into the intersphincteric area up to the level of dentate line through a small, radial incision (0.5 cm) on the mucosa at 3 or 9 quadrant. Scalpel is now rotated 90° towards anal canal. The left hand's index finger of the surgeon which is already placed in the anal canal controls the tapered tip of the scalpel as it is manipulated. The sharp cutting edge of the scalpel is placed just above the upper edge of the internal anal sphincter muscle. As the knife is pulled distally the internal finger follows the tapered tip. The sharp edge of the scalpel thus getting hold of the upper part of the internal anal sphincter, pulls it distally and simultaneously cuts is it through (Figure 2). Internal anal sphincterotomy is thus accomplished.

With this new scalpel closed lateral subcutaneous sphincterotomy becomes easy, comfortable and secure. It furthermore shortens the operation time and prevents postoperative complications of closed lateral internal anal sphincterotomy.

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