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Why do we have to review our experience in managing cases with idiopathic fistula-in-ano regularly?

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Abstract

“Why do we have to review our experience in managing idiopathic fistula-in-ano regularly?” In order to answer this apparently simple question, we reviewed our clinical and surgical cases and most important relevant literature to find a rational and scientific answer. It would appear that whatever method you adopt in fistula management, there is a price to pay regarding either rate of recurrence (higher with conservative methods) or impairment of continence (higher with traditional surgery). Since, at the moment, reliable data to identify a treatment as a gold standard in the management of anal fistulas are lacking, the correct approach to this condition must consider all the anatomic and clinicopathological aspects of the disease; this knowledge joined to an eclectic attitude of the surgeon, who should be familiar with different types of treatment, is the only guarantee for a satisfactory treatment. As a conclusion, it is worthwhile to remember that adequate initial treatment significantly reduces recurrence, which, when it occurs, is usually due to failure to recognise the tract and primary opening at the initial operation.

“Why do we have to review our experience in managing idiopathic fistula-in-ano regularly?”

The answer to the above question is quite straightforward: surgeons are aware of the poor levels of evidence in anal fistula surgery. Despite the high frequency of suppurative ano-perianal lesions of suspected cryptoglandular origin (idiopathic abscess and fistula-in-ano), the ideal treatment with outcomes of no recurrence, minimal incontinence and good quality of life is still a matter of debate. The traditional surgical treatments which include a division of a continuous part of the sphincteric complex (in particular of the superficial external sphincter in transsphincteric fistulas) have been strongly challenged, especially in the last 10-20 years since high rates of impairment of continence have been reported in several experiences^[1,2].

In spite of a high successful healing rate varying from 87% to 100%^[3], the traditional invasive methods of fistulotomy (with/without draining or slow-cutting seton) and fistulectomy (with closure of internal opening with/without sphincter defect repair) have given way to a number of sphincter-sparing methods: endorectal muscular or mucosal advancement flap^[4,5], island flap anoplasty^[6], radiof-

refrequency ablation^[7], fistulous tract filling with fibrin or cyanoacrylate glue^[8,9], porcine small intestine submucosa-derived anal fistula plug^[10], ayurvedic seton^[11], ligation of intersphincteric fistula tract (LIFT) procedure^[12,13], glue containing adipose-derived stem cells^[14], and finally VAAFT (video-assisted anal fistula treatment) carried out with the Storz Meinero fistuloscope^{®[15]}.

This continuous research for an ideal conservative method is compelled by concepts recently restated by the Standards of Practice Task Force of the American Society of Colon and Rectal Surgeons^[16] and by the Association of Coloproctology of Great Britain and Ireland: division of > 30% of the external sphincter should be undertaken with considerable caution for the relevant risk of impairment of anorectal continence, particularly in females, those with anterior fistulas, advanced aged patients, history of previous anorectal surgery, childbirth, fistula associated with Crohn's disease and obviously in patients with a history of continence impairment not related to the fistula^[17].

Indeed, the necessity to identify patients with high risk of incontinence after classic surgical treatment has been stressed over the past few years^[18,19]. These patients, representing a limited number of subjects, have been treated with a conservative approach usually represented by the non-cutting draining seton. Thus, considering that the reported rate of impairment of continence after traditional fistula surgery varies from 0% to 82%^[20], the doubt arises that the definition of "incontinence" is not the same for all authors and that factors other than the amount of divided sphincter may have a role in continence disturbance. In addition, as already observed by Parks^[18], the degree of impairment of anal continence after fistulotomy is not strictly tied to the type of fistula treated and the amount of severed muscle; patients treated for suprasphincteric fistulas (theoretically at higher risk of incontinence) fared better than patients treated for transsphincteric fistulas^[18]. Nevertheless, it seems obvious that a risk of continence impairment is present when a sphincter is cut or stretched. Also, a trivial lateral internal sphincterotomy for the cure of fissure or a hemorrhoidectomy has a risk of continence impairment^[2].

As regards fistula treatment, the question is whether a real advantage is offered by the new proposed methods, especially in the management of the so-called "complex fistulas".

According to several authors^[4,18,21], a complex fistula must have one or more of the following features: the tract crosses more than 30% to 50% of the external sphincter; the fistula is anterior in a female; multiple tracts are present; the fistula is recurrent; there is pre-existing incontinence; the perianal area has been irradiated; there is concomitant Crohn's disease.

A recent review of randomized studies in the literature^[11] evaluated some proposed conservative methods *vs* traditional surgery (in particular: anal sphincter-preserving seton, conventional seton, ayurvedic seton, conventional fistulotomy with/without seton, radiofrequency, advancement flap with/without fibrin glue, island flap anoplasty, fistulectomy) and concluded that there were no significant differences in recurrence rates or incontinence rates in any of the studied

comparisons, except in the case of advancement flaps where the lowest incontinence rates were reported. However, in other experiences of advancement flap procedures, which have been demonstrated as reliable with 77% to 100% healing rates and 21% recurrences, nevertheless 40% of patients had some impairment of continence and 9% presented major disturbance^[22,23]. Advancement flap is not a simple procedure and damage of the sphincter is possible. In fact, it has been reported^[24] that patients with complex fistulas undergoing fistulectomy with immediate sphincter repair had less recurrences and continence impairment than patients submitted to endoanal advancement flap.

It would appear that whatever method you adopt in fistula management, there is a price to pay regarding either rate of recurrence (higher with conservative methods) or impairment of continence (higher with traditional surgery).

The point is that it is difficult to establish whether, and to what degree, an impairment of continence has a negative effect on the quality of life (QoL) greater than the distress caused by multiple recurrences of a fistulous abscess or fistula.

The assessment of personal impairment in relation to objective medical findings represents a problem in the evaluation of incontinence. The degree of sphincter dysfunction does not always correlate with the patient's subjective awareness of his functional deficit^[2]. QoL parameters in fistula surgery are generally based on incontinence scores; however, QoL has a multidimensional aspect that must be taken into account.

The promising results reported by some authors regarding the two least invasive conservative methods, fibrin glue^[25] and Surgisis[®] AFPTM anal fistula plug^[10], are interesting (almost none of the patients report impairment of continence); however, their efficacy in healing the fistulas needs to be better evaluated. Healing rates from 31% to 85% have been reported for fibrin glue and from 14% to 87% for the plug^[9]. Most of the reported experiences suffer from a small number of patients and short follow-up (often less than 6 mo), with the highest rate of success being for simple uncomplicated fistulas in which traditional treatments have also a high rate of success with low rate of continence impairment^[9]. Lack of long-term randomized studies is the other limiting factor for evaluating the efficacy of these procedures. Immediate healing of a fistulous tract does not mean that the infection has disappeared. A fistula can recur after months or years in the same tract or nearby. It must also be considered that when a fistula recurs, patients tend to change surgeon; similarly to what happens in recurring inguinal hernia. Regardless, the adoption of bioprosthetic material as a first-line treatment in complex anal fistulas is recommended by several authors^[26,27] ahead of the more prudent suggestions of the consensus conference promoted by the Association of Coloproctology of Great Britain and Ireland^[28].

Since, at the moment, reliable data to identify a treatment as a gold standard for the management of anal fistula are lacking, the correct approach to this condition must be to consider all the anatomic and clinicopathological aspects of the disease. This knowledge joined to an eclectic attitude of

the surgeon, who should be familiar with different types of treatment, is the only guarantee for a satisfactory outcome.

As a conclusion, it is worthwhile to remember the following concepts and facts: an adequate initial treatment significantly reduces recurrence, which when it occurs is usually due to failure to recognise the tract and primary opening at the initial operation^[19,29-31]; many complex fistulas are iatrogenic in origin^[32]; in the acute phase (fistulous abscess) a radical treatment should be attempted only by experienced colorectal surgeons^[19]; primary suprasphincteric or extrasphincteric fistulas (according to Parks' classification) of cryptoglandular origin are very rare if not nonexistent^[32]; it is essential to have a three dimensional vision of the anorectal region to understand the pathway of diffusion of cryptoglandular infections; a preoperative evaluation of risk factors for incontinence, including frequency of defecation, bowel function and sphincter function, is also mandatory in non-complex fistulas.

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