

A novel minimally invasive treatment for anal fissure

Alkiviadis F. Pappas^a, Dimitrios K. Christodoulou^b

Medical Center of Athens; University Hospital and Faculty of Medicine, University of Ioannina, Greece

Gaj *et al* concluded that the use of anal self-massage with a finger appears to induce a better resolution of acute anal fissure than anal dilators and in a shorter time [1]. We have objections to this strategy, because anal manipulation in the traumatized area of the fissure can induce further injury and aggravate symptoms, exposing the patient to the risk of fistula or abscess formation. Anal manipulation cannot relax the sphincter effectively in case of painful spasm. We believe that only mild cases with acute symptoms and no signs of chronicity could benefit by such a strategy as proposed by the authors. In addition, anal manipulation gives the patient a very uncomfortable feeling and cannot be tolerated in case of severe symptoms.

A new approach has been proposed for the treatment of fissure non-responsive to conservative topical treatment or relapsing, based on laser electrocoagulation and using nitroglycerine or nifedipine [2]. We have implemented and refined this technique (A.P.), aiming at definitive treatment of the fissure within a short time. The patients are admitted for 6-8 h. Under anesthesia with propofol, administered by an anesthesiologist, we treat them with laser electrocoagulation of the fissure and its margins, leaving the internal sphincter virtually intact. By these means, we destroy scarred tissue and give the tissue a chance to heal gradually from the bottom to the top of the anal ulcer of the fissure. The patients recover uneventfully and are discharged on the same day. A diet with soft food and vegetables is recommended, as well as pain killers and antibiotics, daily defecation, washing and application of a gauze in the anal area for 7 days. In fact, we have used this laser technique to treat more than 200 patients with anal fissure. All patients experienced immediate improvement and achieved healing of their fissure within one month. We had no case of recurrence of the fissure and all patients remained in excellent condition at their subsequent visits. No complications and no cases of incontinence were observed.

To conclude, we think that anal self-massage might be a solution for a small proportion of compliant patients with mild symptoms and a fissure of only acute nature. For patients with prolonged anal fissure not responding to conservative treatment, we recommend this minimally invasive new approach. The treatment gives excellent results in almost all patients, and, in our opinion, ameliorates the need for lateral sphincterotomy.

References

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^aSurgeon, Coloproctologist, Medical Center of Athens, Neo Psychiko, Athens (Alkiviadis F. Pappas); ^bGastroenterology Department, University Hospital and Faculty of Medicine, University of Ioannina (Dimitrios Christodoulou), Greece

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Correspondence to: Dimitrios K. Christodoulou, Associate Professor of Gastroenterology, Division of Gastroenterology, Faculty of Medicine and University Hospital of Ioannina, 45110 Ioannina, Greece, e-mail: dchristodoulou@gmail.com

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Authors' reply

Fabio Gaj^a, Ivano Biviano^b, Laura Caneloro^b, Jacopo Andreuccetti^c

Umberto I Policlinic of Rome, Sapienza University of Rome; San Camillo Hospital, Trento, Italy

Christodoulou *et al* present a very interesting surgical technique, surely feasible, effective, and safe [1]. In our view, the dilation technique with the finger, which we investigated with well-defined exclusion and inclusion criteria, and their approach with laser electrocoagulation cannot be compared in this way. The risk of local traumatic complications, fistulas or abscesses, is absent in our experience of hundreds of treated cases. It is difficult to imagine such a problem resulting from dilation with a finger using adequate lubrication.

As we reported in our randomized prospective study, the technique we proposed is not indicated in the treatment of patients with chronic anal fissure, and the results obtained are related to a small population of patients with acute anal fissure only. In addition, although it was not stressed in our paper, randomized patients were those able to undergo a proctologic examination. Thus, all patients who absolutely could not tolerate anal pain were candidates for anal exploration under sedation. Thus, in these acute cases, anal fissure removal associated with lateral internal sphincterotomy was performed.

It was not our intention to compare surgical treatment to noninvasive treatment. Our approach can be considered as a simple domiciliary medical therapy with a minimal social healthcare cost. We agree with Christodoulou *et al* that, in patients affected by chronic anal fissure and in cases of intense painful symptomatology, it is mandatory to recommend a surgical approach that gives the patient a very good chance of healing, such as the technique with laser electrocoagulation.

In this regard, in our Pelvic Floor Unit, patients suffering from chronic and acute anal fissure with painful symptomatology unresponsive to noninvasive therapy are candidates for treatment with transcutaneous electrical nerve stimulation (TENS). TENS is an antalgic stimulation carried out with impulses that reach the peripheral nervous system through electrodes positioned on the area to be treated. TENS stimulation is typically performed with biphasic and symmetrical pulses (square wave) and with modulating frequencies. This type of antalgic stimulation, which allows the relief of pain without resorting to drugs, uses two different physiological mechanisms to achieve this. The first is the endogenous production of β -endorphins and enkephalins, thanks to the activation of the endorphin system with very low stimulation frequencies (<8 Hz). This type of stimulation, which has a slow onset, produces a general pain relief. Second, serotonin production and blockage of gate signals to the upper nerve centers. In this case, stimulation is applied at higher frequencies.

TENS is always a noninvasive outpatient treatment. The patient is slid into a Sims position and skin electrodes are applied to the perianal area. The patients considered were all subjects with chronic and acute anal pain. In acute pain, the improvement reported by the patients was immediate since the first session and has been prolonged even in the hours following the treatment. As reported by patients, the pain duration after defecation has also been reduced. The number of sessions needed was four. In contrast, in subjects with chronic

pain the improvement was negligible, confirming the need for surgical invasive treatment.

We are awaiting the Ethics Committee's authorization to undertake a randomized study to validate the safety and efficacy of this method.

Reference

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Departments of ^aGeneral Surgery and Organ Transplant (Fabio Gaj); ^bMedicine and Medical Specialties (Ivano Biviano, Laura Candeloro), Umberto I Policlinic of Rome, Sapienza University of Rome; ^cGeneral and Mini-Invasive Surgery, "San Camillo" Hospital, Trento (Jacopo Andreuccetti), Italy

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Correspondence to: Ivano Biviano, MD, Department of Medicine and Medical Specialties, Policlinico Umberto I, Sapienza University of Rome, 00161 Italy, Tel.: +39 064 997 8384, e-mail: ivano.biviano@uniroma1.it

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