

Symptoms of obstructive defecation syndrome: functional outcome after stapled haemorrhoidectomy



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Aldo Bove, Vincenzo D'Addetta, Gino Palone, Tarcisio Paniccia*, Stella Chiarini*, Alfonso Lapergola, Giuseppe Bongarzone

University of Chieti, Pescara, Italy

Department of Medicine, Dentistry and Biotechnology

*Department of Medicine and Aging Sciences

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BACKGROUND: Patients with haemorrhoids often present obstructive defecation symptoms. Preoperative they can be classified in three groups: slight, severe and mild symptoms. Aim of this study was to postoperatively evaluate functional outcome in patients who underwent stapled haemorrhoidectomy in mild obstructive defecation syndrome.

METHODS: We enrolled 98 patients with mild obstructive defecation symptoms using Wexner score preoperatively (range 8-16) from the 332 consecutive patients treated with stapled haemorrhoidectomy between January 2009 and December 2011. All patients were clinically examined 1 month after surgical treatment and every 6 months with a mean follow-up of 30 months (range 24-42 months).

RESULTS: The 98 patients enrolled included 58 men and 40 women. There were no intraoperative complications. Postoperative complications included four patients. A reduction of Wexner score from a mean preoperative score of 12 to a mean postoperative score of 6 just 6 months after surgery was observed. This difference was statistically significant ($p < 0.001$; Mann-Whitney U test).

CONCLUSIONS: Careful clinical evaluation of patients with haemorrhoids and obstructive defecation symptom is required to establish the most appropriate treatment. The results of this study indicated that stapled haemorrhoidectomy can improve the functional symptoms for patients with constipation symptoms of moderate degree.

KEY WORDS: Functional outcome, Obstructive defecation symptoms, Stapled haemorrhoidectomy

Introduction

Haemorrhoidal disease is a very common anorectal disorder in the industrialized world. Conservative therapy has shown good results in cases of 1st and 2nd degree illness¹ but surgical procedures are preferred in cases of 3rd and 4th degree haemorrhoidal disease².

Traditionally, the chosen procedures for haemorrhoidectomy have been either the open haemorrhoidectomy according to Milligan-Morgan or the semi-closed technique of Ferguson³. In 1993, A. Longo introduced a new technique called anopexis, in which a resection of rectal prolapsed mucosa was obtained, reducing blood loss by interrupting the haemorrhoidal vessels⁴.

The main advantage of stapled haemorrhoidectomy (SE) is the reduction in post-operative pain and a more rapid return to normal activity compared to the traditional haemorrhoidectomy⁵. Complications are although similar in both procedures with an increased incidence of relapse in patients treated with SE for 4th degree haemorrhoids⁶. Over the last 20 years SE has been increasingly used and is still considered safe and effective⁷.

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Correspondence to: Aldo Bove, MD, University "G. D'Annunzio" via dei Vestini, 66100 Chieti Scalo, Italy (e-mail: above@unich.it)

According to Longo's hypothesis, haemorrhoid prolapse is always associated with an internal rectal prolapse which, in turn, can be a symptom of defecation obstruction⁸.

In patients with haemorrhoid disease, symptoms of constipation are also often present: from the mildest such as Irritable Bowel Syndrome to the most severe such as syndrome of obstructive defecation⁹. Those clinical patterns are often mistaken by patients themselves, so that it is extremely important to specify pre-operatively the severity of the symptoms, because it could determine the therapy to choose.

There are several methods of degree assignment of constipation and of obstructive defecation syndrome. One of the simplest and most common is the Wexner constipation score subdivided into categories: minimal (1-7), medium (8-16), serious (17-30)¹⁰.

It is well known that in patients with obstructive defecation syndrome (score 17-36), surgical procedure and specific rehabilitation are recommended¹¹, while the presence of slight symptoms lacks clinical relevance. In patients with medium symptoms, the appropriate treatment is not defined and there is no contra-indication to a surgical approach for haemorrhoidal prolapse. The aim of this study was to assess in the long term, the functional results in patients who presented pre-operatively, obstructive defecation symptoms of medium degree treated with SE.

The hypothesis was to subsequently determine an effective result of the intervention for symptoms of constipation.

Methods

From January 2009 to December 2011, we operated on 332 patients with SE using a PPH 03 circular stapler (Ethicon Endosurgery): 215 women and 117 men, medi-

an age 52 (range 22-77). All the patients suffered of symptomatic anal or rectal prolapse for a third or fourth degree haemorrhoidal disease. Preoperatively we analyzed every patients with colonoscopy and Wexner constipation score. 98 out of a total of 332 treated patients presented a score of 8-16 and were selected for this study. The mean preoperative score was 12 (Fig. 1). All patients were examined under anesthesia in order to evaluate the degree of prolapse which resulted to occupy no more than half of the CAD.

We evaluated the complications intra and post-surgery, the mean period of hospitalization and the long term results.

The patients were evaluated with clinical examination and telephone interview, after 1 month and every 6 months with mean follow-up of 32 months (range 26-42). At the time of hospital discharge a leaflet of the Wexner score was given to each patient with the recommendation to be completed every six months. Statistical analysis was performed with Mann-Whitney U test.

Results

The 98 patients enrolled included 58 men and 40 women with a mean age of 48 years. There were no intraoperative complications. The mean hospital stay was of 2.2 days (range 2-7). Early postoperative complications included one case of bleeding, which required a surgical revision, and 2 cases resolved with a conservative method.

Urinary retention occurred in 7 patients (6.9%). Late complications involved three cases of spontaneously resolved fecal urgency, one patient with chronic anal pain and one with gas incontinence. Additionally, three recurrences were encountered. All patients returned the Wexner score leaflet updated and 64 patients (63%) had an additional clinical examination.

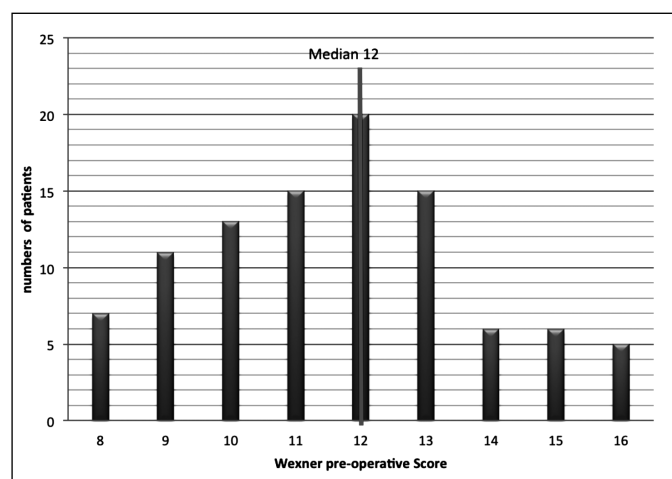


Fig. 1

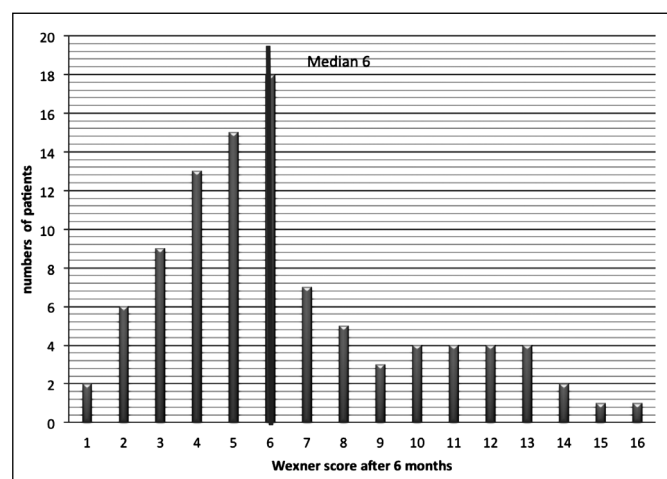


Fig. 2

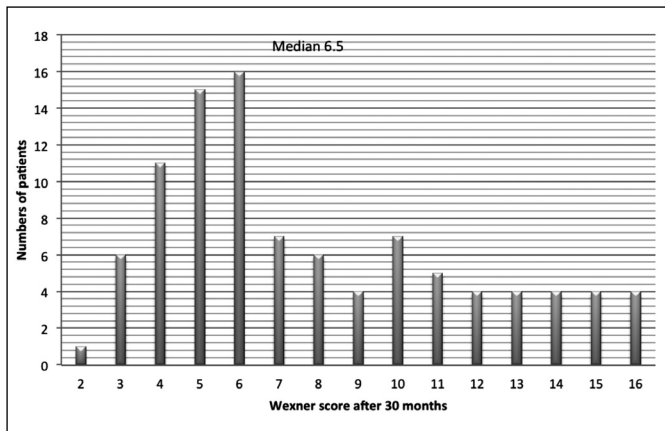


Fig. 3

A reduction of Wexner score from a mean preoperative score of 12 to a mean postoperative score of 6 only 6 months after surgery was observed (Fig. 2). This outcome was confirmed during 30 months period series of controls (Fig. 3) where the mean postoperative score attested at 6.5. This difference was statistically significant ($p < 0.001$: Mann-Whitney U test).

Discussion

Staple haemorrhoidectomy has been validated by various studies which have demonstrated its effectiveness and the good results in terms of post-operative pain and a return to normal activity ¹².

According to Longo's theory the genesis of haemorrhoids depends on a concomitant rectal prolapse which is the base for surgery conception ¹³.

Furthermore in these patients, symptoms of constipation are often present which can be masked by haemorrhoid disease but which must be recognized pre-operatively. The syndrome of obstructed defecation, in fact, has by now undertaken its own identity with specific therapeutic implications ¹⁴.

There are many proposed methods for the study of those patients which include anatomical and functional evaluation and allow classification of the state of the disease ¹⁵. In our study, we wanted to evaluate the long term results of SE in patients who presented pre-operatively a Wexner score of moderate degree ⁸⁻¹⁶.

Our opinion is that Wexner score represents a simple and effective method for screening these patients. Also it is very simple for patients to report their data every six months so we could indirectly control the functional aspect, without a clinical examination.

When we had results which indicated obstructed defecation syndrome (score > 16), the patients were evaluated successively with anorectal-manometry, trans-rectal ultrasound test and Rx defecography or Dynamic Magnetic Resonance defecography.

Beside we fundamentally believe, especially in order to obtain a reduction in relapse, to evaluate intra-operatively the entity of the prolapse and if this is bigger of half of the CAD we propose, according to Longo, a STARR operation ¹⁶ or lately the use of high volume staplers.

We believe that with patients similar to the 98 we analyzed, who presented a mean Wexner score of 12, SE operation is indicated to correct haemorrhoidal disease of 3rd or 4th degree.

Several studies have shown that SE does not alterate the sphincter function ¹⁷ but there are not data about the long term functional results considering the symptoms of constipation.

Bona et al report a positive finding in 50 patients who presented a minimal pre-operative score (0-6) with a follow up of only 6 months ¹⁸.

Our results show that in patients with a pre-operative Wexner score mean of 12, we obtained a significant reduction in mean score of 6 after 6 months and maintained good functional results in the long term with a mean follow-up of 30 months.

In our opinion these results confirm the hypothesis that haemorrhoid prolapse is always accompanied with an internal rectal prolapse, which can be limited to a mucous prolapse or a full-thickness prolapse. In absence of other alterations, such as rectocele or anal-rectal intussusception, the resection of the prolapse with consecutive anopexis, improves the symptoms of constipation. Then pre surgery clinical evaluation in fundamental because it allows identification of those patients with haemorrhoids without other pathologies associated with a really obstructed defecation syndrome ¹⁹.

The problems related with the functional results of the surgical operation are essentially represented by the necessity of a long follow up and the uniformity of the assessment ²⁰. For this reason we previously included in the study only those patients with third and fourth grade haemorrhoids, that presented a clinical and anatomical situation suitable for the operation.

Our patients were observed evenly and over a long period through the compilation of the Wexner score which allowed the evaluation of symptoms well recognized from each patient. Certainly, the direct examination that we performed over 64 patients allowed a better evaluation of the general clinical condition of the patient. On the other hand the possibility to receive periodically the compiled Wexner score enabled us not to lose records of any patients.

In conclusion, for patients with haemorrhoidal disease, a careful evaluation of the symptoms of constipation it is necessary in order to identify the best treatment.

There are still lots of open questions about clinical classification and therapeutic indications for the functional syndrome of obstructed defecation ²¹.

Our study has demonstrated that SE can improve the functional symptoms for patients with constipation symptoms of moderate degree.

Riassunto

INTRODUZIONE: La maggioranza di pazienti affetta da malattia emorroidaria presentano anche sintomi da costipazione che spesso possono mascherare altre patologie funzionali del tratto gastro-enterica.

È importante riconoscere pre-operatoriamente questi sintomi per potergli dare la giusta rilevanza clinica.

Da un punto di vista funzionale i sintomi da costipazione possono essere suddivisi in lievi, di rilevanza clinica minore e in gravi, in cui sono necessari ulteriori accertamenti e procedure terapeutiche multiple.

Vi sono, infine, casi in cui alla malattia emorroidaria si associano sintomi da costipazione di media entità senza che vi siano controindicazioni all'intervento chirurgico. Abbiamo voluto valutare in questi pazienti quale sia l'effetto dell'intervento di mucoprolassectomia sec. Longo, anche a lungo termine, sui sintomi funzionali della costipazione.

METODI: Abbiamo arruolato 98 pazienti (58 uomini e 48 donne), età media di 48 anni affetti da sintomi da defecazione ostruita di media entità in un gruppo consecutivo di 332 pazienti sottoposti a mucoprolassectomia sec. Longo da gennaio 2009 al dicembre 2011.

Per la selezione dei pazienti da includere nello studio abbiamo utilizzato il Wexner score (range 1-30) selezionando quei pazienti che presentavano un range tra 8-16. Abbiamo valutato complicanze immediate e tardive, degenza post-operatoria e risultati funzionali ad 1 mese ed ogni 6 mesi (follow-up medio di 30 mesi).

RISULTATI: Non vi sono state complicanze intraoperatorie né mortalità. La degenza media è stata di 2,2 gg.

Abbiamo avuto tre casi di sanguinamento precoce ed in 1 paziente è stato necessario il reintervento. In 7 pazienti c'è stata una ritenzione acuta d'urina. Per quanto riguarda le complicanze tardive abbiamo riscontrato 3 casi di "fecal urgency", 1 paziente con dolore cronico e 1 paziente con incontinenza ai gas.

Inoltre si è fatta diagnosi di recidiva della malattia emorroidaria in 3 casi

Dal punto di vista funzionale si è assistito ad una riduzione dello score medio pre-operatorio da 12 a 6 dopo 6 mesi. Tale risultato è stato confermato nei controlli a 30 mesi dove lo score medio si è attestato a 6,5. Tale differenza è risultata statisticamente significativa ($p < 0.001$: Mann-Whitney U test)

CONCLUSIONE: I pazienti con malattia emorroidaria devono essere attentamente valutati in presenza di sintomi da costipazione per stabilire quale sia il trattamento più appropriato. In assenza di altre alterazioni, quali rettocele o intussuscezione retto-ale, l'intervento di mucoprolassectomia sec Longo è indicato per correggere la malattia emorroidaria di 3 e 4 grado. Il nostro studio ha dimostrato che l'intervento di emorroidectomia meccanica può migliorare i sintomi funzionali nei pazienti con sindrome da costipazione di media entità.

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