



Surgical treatment of haemorrhoidal disease: a survey of the regional area of Campania in Italy

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Introduction

Haemorrhoidal disease is amongst the oldest and most common diseases in the world; nevertheless, there is still disagreement regarding its pathogenesis, the adequacy of its classification, surgical indications, timing and type of surgical procedure.

Although initially accepted with scepticism, Stapled Haemorrhoidopexy (SH) [1] has been widely used during the last five years and has become popular amongst both surgeons and patients. It remains to be established whether this procedure should be considered the gold standard surgical treatment or just one of many possible procedures.

In order to monitor common practice in Campania, a survey on surgical treatment of haemorrhoidal disease amongst specialists in general surgery and members of the Neapolitan Surgery Association (S.Na.C.) was carried out in March 2003.

Materials and methods

The survey was carried out through a 13-items questionnaire sent to 100 General Surgeons working in Campania. The survey sample was chosen randomly from the S.Na.C. members. Participants were given two weeks to fill in and return the questionnaire.

The questionnaire investigated: indications to surgery according to the stage of disease, number of operations performed by each surgeon in the last six months (Sept 02 - Feb 03), preoperative bowel preparation (if any), diagnostic investigations, type of procedure used, type of drainage (if any), type of anaesthesia, preferred hospitalisation regimen, diagnosis related group (DRG) chosen, postoperative complications, patient's satisfaction at the first out-patient visit one week after surgery and the surgeon's satisfaction.

Riassunto

TRATTAMENTO CHIRURGICO DELLA MALATTIA EMORROIDARIA: INCHIESTA NELLA REGIONE CAMPANIA

Introduzione: nel marzo 2003 in regione Campania, è stata condotta un'inchiesta tra 100 specialisti in chirurgia generale e membri della Società Napoletana di Chirurgia (S.Na.C.), al fine di capire l'andamento sul tipo di trattamento chirurgico eseguito per curare la malattia emorroidaria.

Materiali e metodi: L'inchiesta è stata eseguita inviando un questionario di 13 domande a 100 chirurghi residenti in Campania, scelti in maniera random tra tutti i soci della S.Na.C. Ai partecipanti sono state concesse due settimane per completare il questionario.

Risultati: L'analisi dell'inchiesta ha mostrato interessanti risultati: la procedura chirurgica preferita è stata l'emorroidectomia sec. Milligan e Morgan (MMH), eseguita nel 41 % dei casi, mentre la Stapled emorroidopessi (SH) è stata eseguita solo nel 19% dei casi e ben il 44.4% dei chirurghi partecipanti all'inchiesta ha affermato di non averla mai eseguita. Riguardo alle complicanze postoperatorie, il sanguinamento è stata la più frequente dopo SH, 10 casi su 260 (3.8%), mentre il dolore è stata la più frequente dopo MMH, 102 casi su 568 (17.9%).

Discussione: In accordo con la letteratura, l'analisi da noi eseguita ha dimostrato che sebbene siano stati riportati incoraggianti risultati con percentuali di complicanze basse dopo intervento di SH, questo non è ancora una tecnica largamente accettata, infatti nella nostra regione sembra essere eseguita solo nel 19% dei casi.

Parole chiave: Inchiesta regionale, malattia emorroidaria, stapled emorroidopessi, emorroidectomia.

Abstract

Introduction: In order to monitor the common practice regarding the surgical treatment of haemorrhoidal disease

in Campania, a region in the South of Italy, a survey amongst one hundred specialists in general surgery and members of the Neapolitan Surgery Association (S.Na.C.) was carried out.

Materials and Methods: The survey was carried out through a 13-items questionnaire sent to 100 General Surgeons working in Campania. The survey sample was chosen randomly from the S.Na.C. members. Participants were given two weeks to fill in and return the questionnaire.

Results: The survey was developed to obtain a "picture" of the current situation and revealed some interesting results: the procedure preferred was the Milligan and Morgan Haemorrhoidectomy (MMH) being used in 41 % of the cases, whilst stapled haemorrhoidopexy (SH) was carried out only in 19% of the cases and 44.4% of the surgeons never carried even one. With regard to postoperative complications, bleeding was the most common after SH which occurred in 10 out of 260 cases (3.8%), whereas anal pain was the most common after MMH (17.9%).

Discussion: In keeping with the literature the analysis shows that, although fairly good results with low complication rates are reported with SH, it is still not widely accepted and is performed in only 19% of the patients in our Regional area.

Key words: Regional survey, haemorrhoidal disease, stapled haemorrhoidopexy, haemorrhoidectomy.

Haemorrhoidal disease was classified in four groups: Internal Haemorrhoids (I), reversible protruding haemorrhoids (II), irreversible protruding haemorrhoids (III) and complicated haemorrhoids (IV).

Anal pain was defined as persisting pain not relieved by analgesics and lasting longer than 48 hours after surgery. Patient satisfaction was classified in three groups, patients that will do the operation again (fully satisfied), patients that are not sure to do it again (partially satisfied) and patients that never will do it (not satisfied).

Surgeon satisfaction was valuated asking if they are agree to change the procedure for haemorrhoidal disease.

Results

Forty-five out of 100 (45%) surgeons answered all the questions and returned the questionnaire by the deadline. One thousand three hundred seventy nine patients underwent treatment for haemorrhoids with an average of 30.64 patients per surgeon (range 1-137).

Forty-four out of 45 (97.7%) surgeons indicated surgery for III/IV degree haemorrhoids, whereas only one (2.3%) surgeon considered surgery appropriate for I and II degree haemorrhoids.

Two surgeons out of 45 (4.4%) did not prescribe any intestinal preparation; six out of 45 (13.3%) prescribed a bulk diet 3 days before surgery; 38 out of 45 (84.4%) prescribed an enema before surgery; 7 out of 45 (15.5%) prescribed an osmotic laxative the day before surgery.

Two surgeons out of 45 (4.4%) did not require any diagnostic investigation; 30 out of 45 (66.6%) required a recto-sigmoidoscopy; 19 out of 45 (42.2%) a colonoscopy; 9 out of 45 (20%) an anorectal manometry; 2 out of 45 (4.4%) a defaecography and none require a transrectal ultrasound scan.

The preferred procedure was the Milligan and Morgan Haemorrhoidectomy (MMH) (41 %), while SH was carried out in 19 % of the cases and 20 surgeons (44.4%) never carried even one; in the others 40% of the cases the procedures were rubber band ligation, Fergusson haemorrhoidectomy, Whithead haemorrhoidectomy or variants of Milligan and Morgan haemorrhoidectomy using the new technology like ligasure or harmonic scalpel.

Seventeen surgeons (37.7%) did not use a drainage; while 28 (62.3%) used a swab (14), spongostan (2) or foley catheter (2). General anaesthesia was used in 47 patients (3.4%); local anaesthesia in 510 (37%) and regional anaesthesia in 822 (59.6%).

A One Day Surgery hospitalisation regimen was usually favoured.

Only six surgeons (13.3%) answered the questions regarding the DRG, 1 out of 6 chose the DRG number 149 for SH and DRG 158 for the MMH; 5 out of 6 chose DRG 158 for both SH and MMH. 39 surgeons out of 45 (86.7%) answered the questions with the ICD number (International Classification Disease) instead of the chosen DRG.

The incidence of main complications (bleeding and pain) was considered only for SH and MMH for the heterogeneity of the groups labelled as "others".

Postoperative complications were reported in 49 patients (3.5%) [Table a]. Bleeding occurred in 10 out of 260 (3.8%) cases following SH and in 9 out of 568 MMH (1.5%). One hundred and forty five out of 1379 (10.5%) patients complained of anal pain, i.e. persisting pain not relieved by analgesics and lasting longer than 48 hours

Tab. a – COMPLICATIONS

Complications	n. (%)
SH	14/260 (5.3%)
MMH	16/568 (2.8%)
Others	19/551 (3.4%)
Total	49/1379 (3.5%)

Table b – POST-OPERATIVE ANAL PAIN

Cases/Pain	Total
SH	14/260 (5.3%)
MMH	102/568 (17.9%)
Others	29/551 (5.2%)
Total	145/1379 (10.5%)

Table c – TYPE OF COMPLICATIONS

<i>Complication</i>	<i>Bleeding</i>	<i>Anal Stricture</i>	<i>Sepsis</i>	<i>Urinary Retention</i>	<i>Perianal Gangrene</i>
SH	10/260 (3.8%)	3		1	
MMH	9/568 (1.5%)	4	1	2	
Others	5/551 (0.9%)	1	2	10	1

Table d – PATIENT'S SATISFACTION RATES

<i>Satisfaction Rates</i>	<i>Satisfied</i>	<i>Part. satisfied</i>	<i>Not Satisfied</i>	<i>Total</i>
SH	196 (75%)	59 (23%)	5 (2%)	260
MMH	388 (68%)	136 (24%)	44 (8%)	568
Others	438 (79%)	79 (14%)	34 (7%)	551
	1022	274	83	1379

after surgery; this was observed in 5.3% of patients following SH and in 17.9% after MM [Table b].

There was no significant difference for other complications (anal stricture, sepsis, urinary retention and perineal gangrene) between groups of treatment [Table c]. One thousand and twenty two patients out of 1379 (74.1 %) were fully satisfied with the procedure: 196 following SH (75.4%) and 388 following MMH (68.3%); 274 (19.8%) were partially satisfied: 59 following SH (22.7%) and 136 following MMH (23.9%); 83 (6.1 %) were not satisfied: 5 following SH (1.9%) and 44 following MMH (7.8%) [Table d].

100% of the surgeons were satisfied with the procedures performed and would never change option.

Discussion

Haemorrhoidal disease (HD), which was already known to Babylonians in 2500 B.C., is one of the most common diseases in the world [2] and the treatment is one of the oldest to be described in ancient medical texts [3]. It is estimated that 3 out of 5 people in the western world suffer of HD [4]. In Italy there are about 1.000.000 new cases every year (2% of the population) and about 35.000 HD operations are carried out every year [5].

From 1998 approximately 500,000 SH procedures have been performed worldwide and according to the Ministry of Health in Italy, in the year 2002, 24,000 SH procedures were carried out representing 60% of the total number of procedures to treat hemorrhoidal disease [6]. The disease causes great distress and affect the quality of life of many patients. The surgical treatment is still

controversial and nowadays the debate is focused on the value of new surgical options which are currently being evaluated in clinical trials [7].

Actually, HD pathogenesis is still unclear; certainly, HD genesis has many factors, none of them being determinant [8]. As a consequence, different surgical techniques have been proposed but it remains to be established what the gold standard procedure is.

Today surgical management of the disease aims to provide definite cure or long-term relief of symptoms using techniques which should be safe, spare anorectal function and make the patient's quality of life an important priority [3].

According to Thomson's theory, for which prolapse of the haemorrhoidal cushions and anal mucosa is the predisposing anatomopathological factor in the development of haemorrhoids [9] Dr A. Longo firstly reported the SH in 1998 [10].

SH is the most relevant interesting and controversial innovation in proctologic surgery in recent years and has been reported to be highly acceptable to both patient and surgeon.

The patient is satisfied because of minimal postoperative pain, no need for nursing care and a quick return to normal activity. Surgeon is satisfied because the procedure is quick and effective [3]. For all these reasons, initially, a number of surgeons were enthusiastic about SH to the extent that they considered other techniques obsolete.

In the same time many surgeons remained firm on the MMH technique, strongly criticising SH results and the unjustified number of surgical operations considered to be a consequence of the Longo technique.

Numerous trials worldwide show that SH, with regards

to relapse, patients' satisfaction and complications, can be considered as valid as other techniques [11] [12]. Therefore, only a longer follow up will define whether SH should actually be considered the gold standard for haemorrhoids treatment, [13] an effective option, [11] [12] or just an alternative which does have complications. In fact, two recent randomised prospective studies have shown that SH is followed by a higher recurrence rate if compared with diathermy haemorrhoidectomy [14] [15] and that after SH many patients have persistent pain and significant faecal urgency [15] [16]. The analysis of our survey, which was developed to have a "picture" of the situation in Campania, leads to some very interesting considerations. The high number of questionnaires correctly answered and returned on time (45%) suggest that HD is of great interest among surgeons. There is need for a standard protocol for, there is great variation regarding pre-operative bowel preparation, pre-operative diagnosis and differential diagnosis, use of drainages and type of anaesthesia to be carried out.

For the analysis of our survey we have considered only the results after the SH and MMH procedures, because in the third group there was great variation among the different surgical procedures and non operative techniques like rubber band ligation were also included. The preferred procedure was MMH for the surgeons and SH for the patients respectively; in fact MMH was the most common procedure used (41 % versus 19%) and SH was the one with the higher satisfaction by the patients (75.4%).

There is no doubt that post-operative pain is significant after MMH (17.9%) and pain is the most feared complication by the patient. This may well explain the higher patient satisfaction for SH whereas dangerous complications like bleeding and faecal incontinence are not taken into consideration.

The most interesting finding is that 44% of the surgeons never carried out a SH. In our opinion, this can be explained by the following considerations.

First of all many surgeons do not agree on the rationale of this technique because they do not believe in the Thomson's theory.

Secondly, the SH must not be considered an easy procedure and a wide experience in anorectal surgery must be coupled with specific training in the SH technique [1] [3]. The learning curve is long and it must be stressed that for a general surgeon with no specific training in coloproctology it is not so easy to work trans-anally, so that even the purse-string suture may be difficult to apply. In our survey most of the surgeons are not specialist, so maybe the procedure's rate is lower (19%) than that reported in the literature for the coloproctologist (30-40%) [17].

Thirdly, the healthcare costs are significantly higher due to the use of a stapler.

Fourthly, although SH presents advantages such as less

post-operative pain (in our survey: 5.3% after SH and 18% after MMH), it is not free from serious complications such as post-operative haemorrhage (in our survey: 3.8% after SH and 1.5% after MMH), chronic pain, defecatory urgency and faecal incontinence [18]. Finally, it needs to be pointed out that many surgeons are satisfied with the results obtained with MMH or one of its variants, as shown by our survey, and maybe they are waiting a longer follow-up for the real recurrence rate of SH to consider this procedure as the gold standard of haemorrhoidal disease.

We would like to report the "unofficial" opinion of many surgeon for whom the brilliant success of SH is due more to media exposure than to scientific content.

Conclusion

A survey does have limits and the results of such a study do not have the significance of those derived from randomized trials. In the present series a bias is evident when evaluating the incidence of post-operative pain for the group of "other procedures" includes band ligation, for this reason a comparison was made only among SH and MMH. Nevertheless, a general picture as to the feelings of the surgeons towards a new technique can be drawn.

According to the literature and analysing the results of our survey, Stapled Haemorrhoidopexy is a well-known technique that is also considered effective, but it is not yet widely accepted as the gold standard for treatment of haemorrhoidal disease. At least in Campania, MMH still has a definite role with satisfying results for both patients and surgeons. In addition, it is certainly needed common agreement as to pathogenesis (mechanic or vascular), classification, therapy and indication to surgery for HD so to set a benchmark/guide lines for all to use and share.

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