Rubber band ligation of hemorrhoids

Basheer Abd Ali Huoeil* Ali Abed Mhawese** SheimaaAbd Al hamzaBorhan***
*Specialist surgeon in Al diwanyia teaching hospital
**Specialist surgeon in Al-saderteaching hospital
***Specialist family medicine in Al diwanyia teaching hospital
e-mail: basheer.ali73@yahoo.com
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الخلاصة

تعتبر البواسير الشرجية من المشاكل السريرية الشائعة . تم في هذا البحث دراسة مستقبلية لمئة مصاب بالبواسير الشرجية بعد معالجتهم بواسطة الحلقات البلاستيكية. تتراوح اعمارهم من 20 سنة الى 75 سنة 70 ذكور وثلاثون اناث في العيادة الجراحية الخاصة للفترة ما بين كانون الاول لسنة 2006 الى تموز لسنة 2008. واظهرت الدراسة ان اغلب المرضى حصلوا على نتائج جيده جدا ولم تحدث مضاعفات كثيرة. ونستنتج من هذه الدراسة بان استعمال هذه الطريقة في العيادة الخارجية هي طريقة سهلة وامنة ومضاعفاتها قليلة جدا.

Abstract

Haemorrhoids constitute a frequent clinical problem. A variety of conservative treatment options have been proposed, the majority of which can be safely performed on an outpatient basis, like the rubber band ligation RBL which is selected in this study . The aim of the study is to prove the possibility and benefit of the procedure as a treatment for the first

In this study we review the management of 100 patient (70 male and 30 female) with different degree of hemorrhoids, and the age range from 20-75 year most of them at 30-50 year old, underwent rubber band ligation(RBL) on outpatient clinic(private clinic) during period of 19 month from December 2006 to jully2008.

90 patient(90%) did well and 10 patient(10%) did not feel better two of them (2%) did open hemorrhoidectomywhile8 patient(8%) kept on conservative measures.

The RBL is reliable and safe outdoor procedure for the first, second and third degree hemorrhoids.

Introduction

Haemorrhoids are common in men and women. About half of the population has haemorrhoids by the age of 50. It has been estimated that 58% of people over 40 years have haemorrhoids in the United States.(1)

Proper treatment of hemorrhoidsreporting of results, comparison of the treatment and description of newmethods all require reproducibleclassification that permits recognitionand correct treatment of hemorrhoids ofall severity's, for this reason, the presentclassification has developed .In ithemorrhoids are grossly divided intointernal and external hemorrhoids, andthe internal variety is further sub dividedinto four stages, based principally on thedegree of the prolapse. First- degree hemorrhoids arepathogenically enlarged but neverprolapsed, remaining in their normalanatomical position in the anal canalthey may be asymptomatic, but

evenwhen they produce symptom, they can be seen only with proctoscope. Second –degree hemorrhoidscannot be seen on external examinationbut the patient gives history of prolapsewith defecation, upon proctoscopythey bulge prominently, and the site ofbleeding is often obvious. Third –degree hemorrhoids, theprolapse occurs with every bowel motion, occasionally with straining, withexertion specially when standing. Fourth-degree hemorrhoids arepermanently prolapsed and thus prone to thrombosis, they are painful and oftenbleed profusely, the over lying mucosa often becomes keratinized. Hemorrhoids are rare below 20 years of age, and they are equally distributedin both sexes.Anal outlet bleeding is most commonly associated with hemorrhoids but may certainly be a harbinger of colorectal cancer or inflammatory bowel disease. Any individual with rectal bleeding should undergo an appropriate, thoughtful workup to rule out rectal cancer or inflammatory bowel disease. In a young individual with bleeding associated with hemorrhoidal disease and no other systemic symptoms, and no family history, perhaps anoscopy and rigid sigmoidoscopy are all that is warranted. However, in an older individual, with either a family history of colorectal cancer, or change in bowel habits, a complete colonoscopy should be performed to rule out other pathology.(2,3,4)Treatment options for haemorrhoids include:(2,5) – Rubber band ligation – Infrared photocoagulation – Bipolar diathermy – Sclerotherapy – Cryotherapy – Open Haemorrhoidectomy – Closed haemorrhoidectomy – Anal dilation – Pile stitching – Stapled haemorrhoidectomy In this study we will discuss the Rubber band ligation only . The RBL for the internal haemorrhoids is widely used since its design by Barron in 1963.(6)The low cost of this procedure and its good results in comparison with the other office procedures made it the most common method used by the coloproctologists. Rubber band ligation is commonly recommended for individuals suffering from Grade I or Grade II hemorrhoids and, in some circumstances, Grade III hemorrhoids.(7)

Patients and methods

From December 2006 to jully2008 100 cases of different degrees of haemorrhoids were treated by RBL as an out - patients office treatmentIn preparation, the constipated patients are asked to take laxadyl suppository to pass motion before examination and analgesia (diclofinac sodium injection,75 mg intramuscularly). Themale patient put in a knee-chestposition while female patients in leftlateral position.

After anal examination, the anoscope is inserted and the hemorrhoid to be banded is identified (generally the largest hemorrhoid is banded first). The hemorrhoid sucked into the banding instrument with wall suction. Once this has been accomplished, the patient is asked if he or she feels any pain. If pain is perceived when the hemorrhoid is grasped or suction is applied, a band should not be placed in that location. Instead, the instrument should be advanced proximally in the anal canal until an asensate spot is identified. At this point, the band should be applied. If the patient does not experience any pain or discomfort then the rubber band is applied by depressing the trigger on the hemorrhoid ligature. This treatment is only applicable, of course, to asensate, internal hemorrhoids above the dentate line. Some individuals prefer to band all three hemorrhoids at one setting, however this often results in significant discomfort, however we usually do it in cooperative and thin patients and in patient who doesn't need much

manipulation of the proctoscop during the procedure, otherwise it is our practice to ligate two hemorrhoid at the first session if the patient tolerates this well, then at the second session (three weeks later) the third and forth or a remnant of the incompletely ligated very big first and / or second hemorrhoids will be banded. If the first banding, however, has been difficult, then the remaining hemorrhoids will be banded one at a time. Usually I give the patient prophylactic treatment in formofmetronidazol tab, and broad spectrum antibiotic like ampicillin or sephalosporin capsules for 3–5 days with simple oral analgesic for mild pain or injectable diclophenac sodium for severe pain.After the procedure the patients were asked to wait in waiting area for 10-15 minutes for any acute complaints with an advice to:

A: Avoid straining at stools for at least 24 hours

B: Stool softeners e.g. lactulose syrup

C: Patients were asked to come for 3-4 follow-up visits with at least one month gap after the treatment for haemorrhoidal disease was complete.

Result

During this period we treat 100 patient (70 male 70% and 30 female 30%) with different degree of hemorrhoids most of them of second degree 58 patient (58%) and third degree 34 patient (34%) as in table No.1. and the age range from 20-75 year most of them at 30-50 year old, underwent rubber band ligation(RBL) on outpatient clinic(private clinic).Out of 100 patients submitted to RBL , 90 (90%) patients got improvement and got rid of almost all the signs and symptoms of the disease. From these 100cases , 40 (40%) cases of the total , they felt good after the first session and they did not return back for the other sessions , while 2 patients (2 %) needed a third session of RBL to complete their therapy as in table No.2.One patient with bleeding haemorrhoids which did not respond to the first session of the RBL , submitted to open haemorrhoidectomy , Another patient did not get benefit from the second session of the RBL and he also underwent open haemorrhoidectomy. Eight patients did not improve satisfactorily after the second session of RBL and they continued on the conservative measures . Some patients had one or more of the following complications after the RBL : 1-Feeling of heaviness in the anal area : It was present in 20 (20%) patients and they responded to simple analgesics. 2-Pain : It happened in 18 (18%) patients and it was usually mild however it was severe in some cases and it was managed by simple analgesics for the mild pain or injectable diclofenac sodium or Tramadol for sever pain which may last for one to two days 3-Bleeding : It happened in 9(9%) cases and It was mild in most of cases and usually occurred in the first day after the RBL or at the fifth to seventh day when the ligated pile necrosed and fell. All cases responded to the conservative treatment . 4-Vasovagal attack : It happened in 7(7%) cases , It occurred either during or immediately after the procedure and it responded to lying down for few minutes . 5-Infection :It happened in 1 (1%) cases at the fifth to tenth day after RBL , most of it were mild andall of them were cured by antibiotics and oral metronidazole tablets . 6-Recurrence : After2 yrs , 5 patients (5 %) returned back with recurrence of the haemorrhoids and they had repeated RBL . 7-Urine retention : It happened in 1 old patient (1 %) after the RBL treated conservatively as in table No.3.

Table No.1

Degree of piles	Number of patient	percentage
1st	8	8%
2nd	58	58%
3rd	34	34%

Table No.2

No. of session	No. of patient	percentage
On session	40	40%
Two session	58	58%
Three session	2	2%

Table No. 3

Complication	No. of patient	percentage
Heaviness	20	20%
Pain	18	18%
Bleeding	9	9%
Recurrence	5	5%
Vasovagal attack	7	7%
Infection	1	1%
Urine retention	1	1%

Discussion

In our study, we treated 100 patientswith heamorrhoids by rubber bandligature.The main indication for thesepatients was bleeding and prolapse fordifferent degree of Hemorrhoids. This iscomparable to study conducted byWorbleski. DE(8). who reports athrough retrospective study of 384 through retrospective study of 384 patient who had undergone rubber bandligation for hemorrhoid disease done byone surgon, for the period 1988 to 1993, that the principle indication fortreatment was rectal bleeding and prolapse,. Thestudy shows, eighty-ninePercent of these patients improvedfollowing treatment. In our study the patientsrequired little analgesia, which is ofnonsteroids anti-inflammatory drugs(N.S.A.I.D.), because of little pain , for this reason it is done onoutpatient basis. These results are comparable to theresults of Rasmussen-et al(9). whoproposed that patient treated by bandingrequired significantly less analgesia .Sheikh AR and Ahmad I(10) reported good results and recommended it as a first line management and as an alternative to haemorrhoidectamy. Ahmad R(11) presented that RBL is an effective form of therapy that can control pain, itching, bleeding and discharge. Haemorrhoidal bending remains the most successful method to manage haemorrhoids in out patients clinic.(12) Barron's banding causes fixation and fibrosis by removing excess tissues followed by healing by secondary intention.(13) The only flaw of RBL is that it is not effective against the skin covered component of haemorrhoid or an associated skin tag.(14)The reason behind avoiding triple band ligation is because stretching the mucosa can lead to

pain and sometimes stenosis. The cause of pain in rubber banding is bending before the dentate line.(15)Wehrmann T and colleagues(16) reported pain in 25% of patients with RBL. Arroyo A and associates(17) concluded that open haemorrhoidectomy was associated with significant pain. Lee et al(18) reported that patients with multiple haemorrhoidal banding in a single session compared with patients with single banding had greater discomfort and pain(29%vs 4.5%). In our series a maximum of two bands were placed per session, but it was observed that the patients on whom single band was applied per session were more comfortable and pain free as compared to the group on whom two bands were applied, who had complaints of pain, straining at defecation and discomfort. Poen at el(19) have shown RBL to be as effective as haemorrhoidectomy. The study also confirms that RBL is an effective treatment for symptomatic haemorrhoids. Kumar et al(20) described a cure rate up to 70%, whereas in our study cure rate was 90%. All our patients were kept under observation in the waiting area for 20-30mins following which they went home. None of our patient was admitted to in-patient. This is comparabe to other international studies.Fakuda A and associates(21) reported excellent results in 89% of patients, good in 9% and poor in 2% of patients with RBL. Bursics A and associates(22) reported that both nasal and squeeze pressure dropped after haemorrhoidectomy, whereas they remained unchanged in RBL. Go Kalp(23) and associates recommended local anaesthesia with RBL as it significantly reduces pain.

Conclusion

From the results of our study and other studies the RBL is settled as an effective , easy , comfortable, cheap, and practical method for treatment of the first and second degree haemorrhoids, With the same idea and principles we can apply the RBL on the third degree haemorrhoids however, the successful rate is bit lower and complication rate is bit higher than in the 1st and 2nd degree, Some individuals fail to respond whatsoever , or cannot tolerate banding and may require formal haemorrhoidectomy.

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