



Original Article

Rubber Band Ligation versus Excisional Haemorrhoidectomy A Search for Better Option

M Nasiruddin¹, Mahbubar Rahman², Haridas Shaha³, Shamima Sultana⁴

Abstract

During The period of March-2003 to January-2006 a total of 100 patients with haemorrhoid admitted in Jhenaidah Sadar Hospital and in different private clinics of Jhenaidah and Faridpur town were taken in the study. This study compares the two most popular treatment options for haemorrhoids namely rubber band ligation (R.B.L) and excisional haemorrhoidectomy (E.H). Complete Remission of haemorrhoidal symptoms was better after haemorrhoidectomy than rubber band ligation. Fewer Patients required retreatment after haemorrhoidectomy but anal stenosis, postoperative haemorrhage and incontinence of flatus were more common with this operation. Haemorrhoidectomy produced better long term symptom control in patients with grade III Haemorrhoid but was associated with more postoperative complications than rubber band ligation.

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Introduction

Haemorrhoid is a common surgical problem in our country. The treatment of the disease is directed at alleviating its varying symptomatology. The two popular and conventional treatment options are to fix the haemorrhoidal cushions by scaring or ablate them by formal excision. R.B.L is the most popular of the non-surgical interventions¹⁻³, but despite its simplicity, the procedure is known for its diminishing long term efficacy.

On the other hand, E.H seems to produce the most sustainable symptom control with less need for retreatment⁴ and is considered by many the 'gold standard' treatment for symptomatic haemorrhoids. This study compares the two common techniques for treating haemorrhoids with a view to ascertain the better option.

Material and Methods

A prospective study was done on 100 cases of haemorrhoid admitted in Sadar Hospital Jhenaidah and different private clinics of Jhenaidah & Faridpur town from March 2003 to January 2006. The ages of the patients were between 20 & 70 years. Diagnosis of the cases was based on history taking and clinical findings with special attention to proctoscopic findings. Routine laboratory investigations were done before R.B.L or E.H procedures. Symptomatic haemorrhoids with grade II and III in random adult patients were eligible for inclusion. The exact technique of excision (open, semiclosed, closed) and type of instruments used (Scissor, Diathermy etc) were not criteria for exclusion. Of 100 cases 30 were of stage III and 70 were of stage II. Control of haemorrhoidal disease was the primary outcome

¹ Assistant Professor, Department of Surgery, Faridpur Medical College.

² Medical Officer, Faridpur Somorita Hospital, Faridpur.

³ Assistant Registrar, Faridpur Medical College Hospital, Faridpur.

⁴ Consultant (Gyn & Obs), Sadar Hospital, Jhenaidah.

measured along with the out come related to the degree of haemorrhoids. Disease control was grouped into two categories. Patients was considered cured or improved if they were symptom free or had minimal residual symptoms not requiring further treatment at the end of the study period. They were considered unchanged or worse if they experienced no symptom improvement or had deterioration of symptoms requiring further intervention or suffered complications of the procedures. Other out come measures included retreatment rate, duration of pain after the procedure, complications (Postoperative bleeding requiring readmission, incontinence, anal stenosis, and sepsis), patient's satisfaction, time to return to normal activities and quality of life. The complications were grouped into early (Urinary retention, postoperative haemorrhage, acute anal fissure) and delayed (anal stenosis, incontinence of flatus, low back pain).

Results

A total of 100 cases were taken in the study. Out of 100 cases 80 were male and 20 female. 56% of the total cases were between the ages of 31 to 50 years (Table -01).

70 cases were of grade- II disease and 30 were of grade III disease (Table-02).

R.B.L. procedure was done in 50% of cases and the rest 50% underwent E.H procedure (Table-03).

Postoperative complications like intense postoperative pain, urinary retention, postoperative haemorrhage and stenosis etc. were found more common in E.H then R.B.L procedure (Table-04)

Duration of time off work is more in E.H (30 days) than R.B.L (07 days). (Table-05)

In respect of complete remission of haemorrhoidal symptoms, R.B.L and E.H procedure are equally effective in grade II disease but E.H is more effective than R.B.L in grade III disease (Table-06)

In the study 20% patients after R.B.L procedure and only 02% cases after E.H procedure required retreatment during the observation period.(Table-07).

Table-01: Showing age and sex distribution of the study population (n=100)

Age in years	Male	Female	Percentage
20-30	15	05	20
31-40	25	07	32
41-50	20	04	24
51-60	15	03	18
61-70	05	01	06

Table-02: Showing stage of haemorrhoids in the study population (n=100)

Total no. of cases	Grade	Percentage
100	II 70	70
	III 30	30

Table-03: Showing procedure of treatment in the study population (n=100)

Procedure	No of cases	Grade- II	Grade-III	Percentage
E.H	50	35	15	50
R.B.L	50	35	15	50

Table-04: Showing Complications after R.B.L & E.H procedures,(n=100, R.B.L 50, E.H 50)

Complications	No of patients		Percentage	
	R.B.L	E.H	R.B.L	E.H
Intense pain	10	40	20	80
Urinary retention	01	05	02	10
Bleeding	01	04	02	08
Anal stenosis	00	02	00	04
Acute anal fissure	02	00	04	00
Faecal incontinence	00	00	00	00
Flatus incontinence	00	02	00	04
Low back pain	00	01	00	02

Table-05: Showing duration of time off work after the procedures

Type of Procedure	Average time off work
R. B.L	07 days
E.H	30 days

Table-06: Showing complete remission of haemorrhoidal symptoms (C.R.H.S) after the procedures.

Procedure	Total No	C.R.H.S (bleeding & prolapse)	Percentage
R.B.L	Grade II - 35	25	71.42
	Grade III -15	10	66.66
E.H	Grade II -35	25	71.42
	Grade III-15	14	93.33

Table-07: Showing incidence of retreatment after R.B.L & E.H.

Type of procedure	No of patients	Retreatment required	Percentage
R.B.L	50	10	20
E.H	50	01	02

NB. R.B.L= Rubber Band Ligation, E.H= Excisional Haemorrhoidectomy
C.R.H.S= Complete Remission of Haemorrhoidal Symptoms.

Discussion

The need to treat haemorrhoids is based primarily on the severity of symptoms but the type of treatment is based on the traditional classification of haemorrhoids⁵ which may have little to do with symptom severity. A wide variety of treatments has added to this confusion. The question of best treatment remains unanswered despite most of the techniques having been subjected to randomized evaluation⁶. The present study is concentrated on the outcomes of symptom relief, retreatment, complications, duration of time off work and patient's satisfaction. In the present study, the efficacy of haemorrhoidectomy is proved by the significantly fewer retreatments required and less symptom recurrence rate compared with R.B.L. This was practically so for grade III haemorrhoids.

Safety is of paramount importance for treatment. Further more complications and subsequent disability are important factors on which patients often decide whether or not to accept any treatment despite troublesome symptoms. In the present study early and delayed complications appeared more frequent after E.H than R.B.L.

Patient satisfaction, quality of life and economic consequences such as duration of time off work also determine the acceptability of any treatment. Time off work was significantly less after R.B.L highlighting its economic advantage, but the continuing cost of repeated treatments needs to be considered. Retreatment occurred less often after E.H than R.B.L.

In summary; the study confirms the long term efficacy of haemorrhoidectomy at least for Grade III haemorrhoids compared with R.B.L but at the expense of more pain, more complications and more time off work. Despite these disadvantages patient satisfaction and acceptance of the treatment is similar to those associated with R.B.L. It seems reasonable to adopt R.B.L as the procedure of choice for Grade II haemorrhoid as it has results similar to those of E.H but with fewer side effects. Haemorrhoidectomy should be reserved for grade III haemorrhoids or recurrence after R.B.L

Conclusion

Haemorrhoidectomy produced better long term symptom control in patients with grade III haemorrhoid but was associated with more postoperative complications than rubber band ligation.

Reference

1. Johansson JF, Rimm A. Optimal nonsurgical treatment of haemorrhoids : a comparative analysis of infrared coagulation, rubber band ligation and injection sclerotherapy . *Am J Gastroenterol* 1992; 87: 1600-1606
2. Blaisdell PC. Office ligation of internal hemorrhoids. *Am J Surg* 1958; 96:401-404.
3. Bat I, Melzer F, Koler M, Dreznick Z, Shenesh F. Complications of rubber band ligation of symptomatic internal hemorrhoids. *Dis Colon Rectum* 1993; 36:287-290.
4. Granet E. Hemorrhoidectomy failures: causes, prevention and management. *Dis Colon Rectum* 1968; 11:45-48.
5. Goligher J, Duthie H, Nixon H. Hemorrhoids or piles. In *Surgery of the Anus Rectum and Colon* (5th edn). Bailliere Tindall: London, 1992; 144-145.
6. Der Simonian R, Laird N. Meta-analysis in clinical trials. *Control Clin Trials* 1986; 7:177-188.
7. Murie JA, Mackenzie I, Sim AJW. Comparison of rubber band ligation and haemorrhoidectomy for second and third degree haemorrhoids: a prospective clinical trial. *Br J Surg* 1980; 67:786-788.
8. Froster CF, Sussmann HE, Patzelt-Wenczler R. Optimization of the barron ligation treatment of 2nd and 3rd -degree haemorrhoids using a therapeutic trioka. *Schweiz Rundsch Med Prax* 1996; 85:1476-1481.
9. Hardy KJ, Wheatley IC, Heffernan EB. Anal dilatation and haemorrhoidectomy. A prospective study. *Med J Aust* 1975; 2:88-91.
10. Jones CB. A comparative study of the methods of treatment for haemorrhoids. *Proc R Soc Med* 1974; 67:51-53.

All correspondence to:
Dr. Md. Nasiruddin
Assistant Professor, Department of Surgery
Faridpur Medical College, Faridpur