

Rubber Band Ligation of Second Degree Haemorrhoids (Our Experience)

AMIR RIAZ BHUTTA, AYESHA SHAUKAT, FAREEHA FAROOQI

ABSTRACT

Our prospective study was carried out for a period of 5 years on 200 consecutive patients of second degree piles coming to the out patient department of Sir Ganga Ram Hospital, Lahore. It was aimed to assess the patient satisfaction, safety, feasibility and complications of rubber band ligation. 70% patients were satisfied with the procedure, 15% were lost in follow up, 10% required oral analgesics for pain, 4% had post procedure bleeding, 0.5% had infection, 0.5% had vasovagal signs and symptoms just after the procedure. We did not identify any major complication. We recommend rubber band ligation a very good ambulatory procedure for second degree haemorrhoids.

Key words: Rubber band ligation (RBL), haemorrhoids (piles).

INTRODUCTION

Haemorrhoids have plagued mankind since time immemorial. Thomson was the first to describe haemorrhoids as "the vascular cushions"¹, which provide a gas seal to the anus. When these vascular cushions produce symptoms, most laypersons and physicians refer them as haemorrhoids². These are clusters of vascular tissue (arterioles, venules, arteriolar-venular connections), smooth muscles and connective tissue lined by the normal epithelium of anal canal³. Haemorrhoids have 3 main cushions which are situated in the left lateral, right posterior and right anterior areas of the anal canal. Minor tufts can be found between the cushions⁴. Depending on the symptoms produced the haemorrhoids are classified in degrees as follow⁵:

- 1st bleeding with haemorrhoids that prolapse into but not out of the anal canal.
- 2nd bleeding and seepage with haemorrhoids that prolapse on defecation but reduce spontaneously
- 3rd bleeding with seepage with haemorrhoids that require digital reduction.
- 4th haemorrhoids that cannot be reduced into the anal canal or are strangulated.

The proposed theory for production of haemorrhoidal symptoms is that low fibre diets cause small caliber stools which result in straining with defecation which leads to increased pressure and causes engorgement of the hemorrhoids, possibly by interfering with the venous return⁶. Pregnancy and abnormally high tension of the internal sphincter muscle can cause hemorrhoidal problems by the same mechanism. The symptoms related to hemorrhoids are bleeding, prolapse, pain and

perianal itching/ irritation⁷. Various treatments modalities are in use sclerosant injection therapy, Lord's procedure, rubber band ligation, infrared coagulation, bipolar electro coagulation, cryosurgery etc for the 1st and 2nd degree haemorrhoids⁸. But rubber band ligation is still a safe, cheap and convenient method and can save hundreds of hospitalization days⁹. This study was therefore performed to know patient satisfaction and to know the immediate and long term results of the technique in our setup.

MATERIALS AND METHODS

The study was prospective and was conducted on 200 consecutive outpatients with 2nd degree haemorrhoids from Jan 2001 to Jan 2006 in surgical department of Sir Ganga Ram Hospital, Lahore. The patients selected were of both sexes and between 18-70yrs of age. The status of internal haemorrhoids was confirmed by proctoscopy. The criteria for non inclusion in study were other anorectal diseases, inflammatory bowel disease, pregnancy or previous history of surgery for haemorrhoids. Written informed consent was taken from all patients and after preliminary assessment of patients i.e., detailed history of disease and general and systemic examination and a few baseline investigations (haemoglobin, bleeding time, clotting time and urine complete examination) the patients were subjected to RBL. Follow up was done at 2nd, 6th and 6 months and 1 year. The complications and patient satisfaction were recorded in proformas.

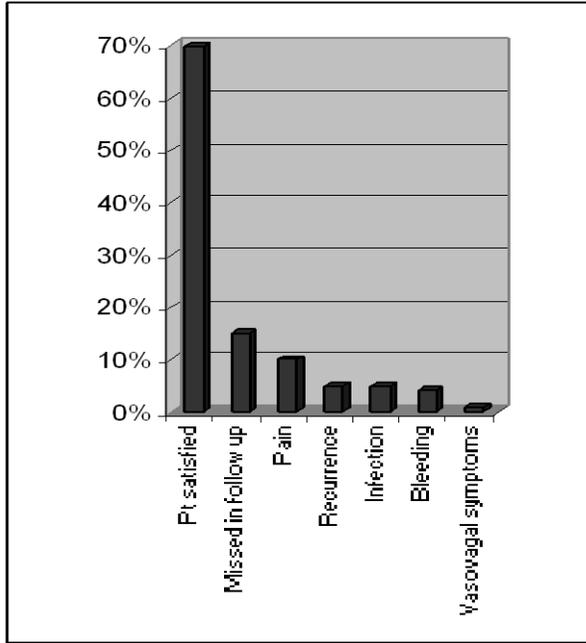
RESULTS

We did not identified any major complication in our series. 90% of patients were first treated by quacks and hakims before their first visit to a qualified doctor. 70% were satisfied with the procedure and recommend the procedure to a friend/relative. 15% of

Department Of General Surgery, Fatima Jinnah Medical College and Sir Ganga Ram Hospital Lahore.

Correspondence to Dr Amir Riaz Bhutta, Associate Professor Surgery

the patients never came back for a follow up. 10% experienced pain after the procedure which required oral analgesics for 1 wk. only 4% had post procedure bleeding per rectum which settled down in 2 wks. <1% had vasovagal attack which was most frequently observed at the time of procedure and approximately 0.5% had local infection which required analgesics and antibiotics. We observed recurrence of haemorrhoids in 5% of patients which were re applied RBL.



DISCUSSION

The alimentary tract end at the anus, which is preceded by the rectum and complex of the two, is known as anorectum. The walls of the anorectum contains the terminal branches of the superior haemorrhoidal artery in the internal haemorrhoidal plexus and enlargement of these result in internal haemorrhoids principally found at 3, 7 and 11 O'clock position because of positions of cushions here¹⁰. There is consensus on the treatment of 3rd and 4th degree haemorrhoids i.e., haemorrhoidectomy¹¹ but the best treatment of 1st and 2nd degree haemorrhoids is still an enigma. RBL is the safest, cheapest and most convenient treatment¹². In our study haemorrhoids were most common in the 4th decade of life. Male to female ratio was 1:2. The average duration of symptoms (bleeding, pain and prolapse) was 3-4 years and the major presenting symptom was bleeding per rectum. 90% of the patients were treated by quacks before presentation to any qualified doctor. RBL is the cheapest method

and do not require hospitalization. It was done as an OPD procedure saved patient hospital stay, bed occupancy and only 3 follow up visits in OPD for 6 weeks and one at 6 months and 1 year for recurrence. After RBL 80% of the patients were cured of the symptoms out of which only 15% had minor complications, 15% of the patients were missed in the follow up and only 5% had recurrence which required re application of RBL. 70% of the treated patients were satisfied with the procedure and would recommend the procedure to a close friend or relative. In only 15% of the patients complications were seen with no major complication, which required treatment for 1-2 weeks. Our results are comparable with the Longman RJ, Thomson WH and Waston NF^{13,14} study of band ligation of haemorrhoids where 84% were rendered symptom free after the procedure.

CONCLUSION

Immediate results were very good in particular for bleeding and prolapse. Patient satisfaction may be further improved by counseling regarding the fear of the procedure and occurrence of complications. We recommend RBL a good ambulatory and economical practice that could either get better or resolve the disease.

REFERENCES

1. Thomson WH. The nature of haemorrhoids. *Br J Surg* 1975; 62(7): 542-52.
2. Haas PA, Fox TA Jr, Haas GP. The pathogenesis of hemorrhoids. *Dis Colon Rectum* 1984 Jul; 27(7): 442-50.
3. Hosking SW, Smart HL, Johnson AG: Anorectal varices, haemorrhoids, and portal hypertension. *Lancet* 1989 Feb 18;1(8634):349-52.
4. Johnson JF, Sonnenberg A: Temporal changes in the occurrence of hemorrhoids in the United States and England. *Dis Colon Rectum* 1991 Jul; 34(7): 585-91; Discussion 591-3.
5. Brisinda G. How to treat haemorrhoids. *BMJ* 2000; 321: 582-3.
6. Hiltunen KM, Matikainen M. Anal manometric findings in symptomatic hemorrhoids. *Dis Colon Rectum* 1985 Nov;28(11):807-9.
7. Lord PH. A new approach to haemorrhoids. *Prog Surg* 1972;10:109-24.
8. Milligan ETC, Morgan CN, Jones LE, Officer R. Surgical anatomy of the anal canal, and the operative treatment of haemorrhoids. *Lancet* 1937; ii:1119-24.
9. Bayer I, Myslovaty C, Picovlky BM. Rubber band ligation of haemorrhoids. Convenient and

- Economic treatment. *J Clin Gastroenterol* 1996;23:50-2.
10. Morris PJ, Malt RA. *Oxford Textbook of Surgery* 1994; 1:1127.
 11. Milligan ETC, Morgan CN, Jones LE, Officer R. Surgical anatomy of anal canal, and the operative treatment of haemorrhoids. *Lancet* 1937;ii: 1119-24.
 12. Benzoni E, Milan E, Cerato F, Narisetti P, Bresadola V, Terrosu G. Second degree haemorrhoids: patient's satisfaction, immediate and longterm results of rubber band ligation treatment. *Minerva Chir.*2006 Apr;61(2):119-24.
 13. Longman RJ, Thomson WH. A prospective study of outcome from rubber band ligation of piles. *Colorectal Dis.*2006 Feb; 8(2):145-8.
 14. Watson NF, Liptrott S, Maxwell-Armstrong CA. A prospective audit of early pain and patient satisfaction following out-patient band ligation of haemorrhoids. *Ann R Coll Surg Engl.*2006 May; 88(3):275-9.