Combined Anal Dilatation and Rubber Band Ligation: Therapeutic Choice for Internal Haemorrhoids

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Haemorrhoids are one of the common problems we encounter in our hospital clinic. Treatment of haemorrhoids varies from traditional haemorhoidectomy\(^1\) to simple out-patient procedures, such as band ligation.\(^2,^3\) Other treatment techniques include cryosurgery,\(^4\) anal dilatation,\(^5,^6\) direct current electrotherapy,\(^7\) and sclerosing therapy. In this paper, we report the results of combined anal dilatation and rubber band ligation as the treatment of choice for internal haemorrhoids.

Materials and Methods

From January 1986 to February 1989, 91 patients were treated by combined anal stretch and band ligation. Cases were selected after failure to respond to conservative treatment including suppositories containing anti-inflammatory steroids and local anaesthetic preparations, such as Scheriproct\(^8\) (Shering AG Germany containing prednisolone clemizole and cinchocaine) and a course of laxatives. Patients were advised against any undue expulsive efforts with defaecation. It was insisted that patients eat increased amounts of vegetables and fruits. Surgery was accomplished after general anaesthesia, as a two-stage procedure at the same surgical encounter.

Techniques

Stage I: Anal dilatation

This was carried out with the patient in the left lateral position. This position is preferred to the lithotomy position; however, this is a matter of individual choice by the surgeon. The lithotomy position distorts anal anatomy and makes dilatation very much more difficult.\(^6\) The constricting bands were identified by examining fingers and were stretched up to the point where it was felt to give way. There was no need to do more. Attention was focused on avoiding overstretching beyond this point.

Stage II: Rubber band ligation

Using a proctoscopic approach, the haemorrhoids were identified. An Allis forceps was used to grasp the apex of the haemorrhoid which was pulled into the drum of the Barron applicator. One rubber band was applied at the base of each haemorrhoid. Two rubber bands were used for a large haemorrhoid mass. All haemorrhoids were similarly ligated at the same sitting. Skin tags were not a major problem, and did not need additional treatment in our series.

Postoperative instructions

Routine postoperative instructions included laxatives, high fibre diet, Sitz baths twice a day, and analgesics for any pain.

Results

The patients were seen at 2 and 4 weeks following discharge. None of the postoperative complications such

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as sepsis, bleeding, severe pain, thrombosed haemorrhoid, or incontinence of faeces and flatus were observed at the initial follow-up visit, 2 weeks postoperatively. At the second follow-up visit, 4 weeks postoperatively, all patients were examined by proctoscopy to assess any recurrence of haemorrhoids; no recurrence was found and the patients were asymptomatic. The patients were advised to continue a high-residue fibre diet and avoid any unnecessary straining during defaecation. All patients were further instructed to keep in contact, should they experience any recurrence of symptoms. One patient was found to have a recurrence with one second degree haemorrhoid after 6 months. This was treated with band ligation, on an ambulatory basis, with good results.

Follow-up telephone contact was made with the rest of the 90 patients at the end of 1 year and this revealed they were asymptomatic and satisfied with the outcome of the procedure. Telephone follow-up was possible, as all the patients lived in the Industrial City, which is very similar to a large campus-type setting.

Discussion

Anal dilatation alone and band ligation alone, as separate procedures for internal haemorrhoids, are being widely practised. In our study, we found that combining these two methods together provided a better result than if band ligation alone were performed as a separate procedure. There is a certain amount of thickening and deposition of fibrous tissue in the internal sphincter muscle and, sometimes also in other parts of the circular muscle in the lower end of the rectum. During the process of defaecation, the anal ring is unable to relax normally in front of the peristaltic wave. This, in effect, leads to high pressure on the rectum, which appears to be a factor in the formation of haemorrhoids. Usually the internal sphincter is found to be more spastic in adults. Studies conducted, to relate the anal pressure and the aetiology of haemorrhoids, showed there is a high anal pressure in patients with symptomatic haemorrhoids, and solely performing band ligation for haemorrhoids, did not relieve the aetiological factor. Performing an anal stretch, in conjunction with band ligation, helps to remove the pile mass without any morbidity, as well as eliminating one aetiological factor. Our patients did not experience the previously mentioned complications reported by other studies, when band ligation was exclusively performed. Other studies carried out focused attention on the relationship between the internal sphincter and haemorrhoids. Allgower reported the result of 111 sphincterotomies for the first to fourth degree haemorrhoid. Hancock, and Hancock & Smith noted increased sphincter tone in patients with haemorrhoids. Arabi et al., found high anal pressure in patients with symptomatic haemorrhoids. They were usually men aged less than 46 years. Schouten & Vroonhoven also produced good results after performing lateral sphincterotomy.

DeRoover reported experience with lateral sphincterotomy, along with band ligation, in treating haemorrhoids from the first to third degree.

Conclusion

In our experience, combining anal dilatation and band ligation yields better results than either technique alone. It is a simple procedure and well tolerated by the patient and there is, therefore, no hesitation in recommending it to surgeon colleagues as a first line of treatment for patients with internal haemorrhoids.

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References