

COMPARATIVE STUDY OF BAND LIGATION AND SCLEROTHERAPY IN MANAGEMENT OF INTERNAL HAEMORRHOIDS

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KEYWORDS :

INTRODUCTION

The prevalence of Haemorrhoids in India according to recent surveys is around four million.¹ Classification of Internal Hemorrhoids is into the following grades:^{2,3}(fig 1 and 2)

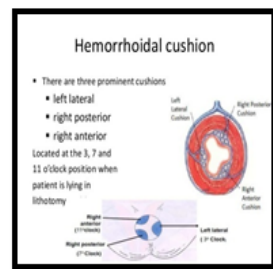
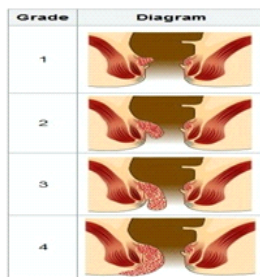


Fig1; Grades of hemorrhoids Fig 2: Position of hemorrhoids

Depending upon the grade of haemorrhoids, the management of haemorrhoids is done first through dietary and lifestyle modification. Operative treatment is generally recommended for grade III and IV Haemorrhoids. It might include hemorrhoidectomy; Doppler guided haemorrhoidal artery ligation (DGHAL) and stapled haemorrhoidopexy.³ Today, most patients with grade I and II haemorrhoid disease in whom medical treatment fails may be effectively treated with outpatient Department (OPD) procedures, such as banding, sclerotherapy and infrared coagulation. Haemorrhoid banding is typically one of the most effective options. The present study was planned to compare the rubber band ligation with sclerotherapy in management of Haemorrhoids in a tertiary care centre in Northern India.

MATERIAL AND METHODS

The present study was carried out as a randomized controlled study that included patients presenting with Haemorrhoids in OPD Department of General Surgery, Rohilkhand Medical College and Hospital (RMCH), Bareilly. Period for study was one year. A total of 50 patients were enrolled in the study and were divided into two groups. Group I (n=25): Patients who were treated with sclerotherapy. Group II (n=25): Patients who were treated with rubber band ligation. Computerized Randomization was done. Patients with complaints of bleeding per rectum, pain, irritation in anal region, diagnosed grade I and II haemorrhoid (on the basis of history, digital rectal examination and proctoscopy) were included in the study.

Method of Collection of Data

A detailed history was taken and proctoscopy was done to diagnose internal haemorrhoids. Systemic examination and basic investigations (Complete blood count, Liver function test, Blood coagulation profile, Viral marker, ECG) were done. Follow-up of the patients was done by history and proctoscopy to assess the efficacy of the treatment and to assess complications like pain, bleeding.

OBSERVATION AND RESULTS

Majority of cases were aged between 31 and 50 years (74%). 36 (72%) patients were males and 14 (28%) were females. 30 (60%) cases were from rural areas. There were 20 (40%) patients from urban area. Most of the patients (74%) belonged to low-socioeconomic classes (farmers-42%; laborer 32%) followed by housewives (26%).

Overall majority of cases had grade II Haemorrhoids 28 while remaining 22 had grade I Haemorrhoids. Bleeding (n=48) and pain (n=35) were most common presenting signs and symptoms in both the groups. In Group II, 1 patient had complaints of constipation too.

Mean time taken for procedure was slightly lesser in Group I (30.72±2.07 min) as compared to that in Group II (31.76±3.15 min) yet this difference was not significant statistically (p=0.174).

All the patients experienced mild (+) pain during the procedure and immediate post operative period, Analgesic were required in all the cases.

At first follow-up all the patients reported of pain – 23 patients were reported mild pain and 27 were reported of moderate pain. At second follow up 18 patients did not report pain and 29 reported mild pain. Only 3 patients reported moderate pain on second follow up. At third follow up, only 8 patients reported of pain. With increasing follow-up duration, a decrease in dose of analgesic use were prescribed in both the groups.

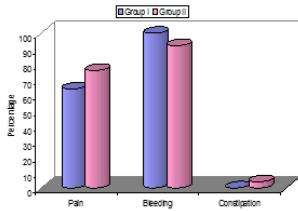
With increasing follow-up duration, a decrease in number and severity of bleeding was observed in both the groups. The difference between two groups was not significant statistically at any of the time intervals except at second follow up when proportion of those showing minimal bleeding was significantly higher in Group I (24%) as compared to that in Group II (0%).

At final follow up at 3 weeks, 24 patients in each group had satisfactory outcome while 1 patient in Group II had good and 1 patient in Group I had excellent outcome.

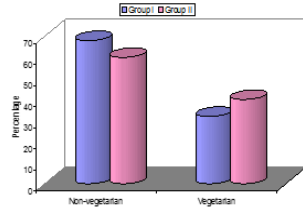
DISCUSSION

Age of patients ranged from 18 to 70 years. In present study we found only two patients below 20 years of age. However, peak incidence was observed between 30 and 50 years of age (74%). The present study had a dominance of patients from rural areas (64%).

In this study, among clinical signs and symptoms bleeding (96%) and pain (70%) were the dominant presenting complaints (Graph 1). Constipation was reported by only 1 (2%) patient. Although constipation and prolonged straining are believed to cause haemorrhoids because of hard stool and increased intra abdominal pressure could cause obstruction of venous return, resulting in engorgement of the haemorrhoidal plexus⁵ however this was not a significant factor in this study.



Graph 1



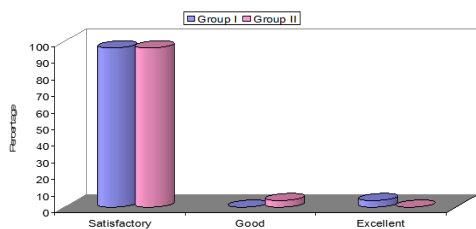
Graph 2

In this study majority (64%) of patients were non-vegetarians. (Graph 2) As far as operative time is concerned, both rubber band ligation and sclerotherapy are considered to be office-based day-care procedures and as such no significant difference in time taken for procedure has been reported in different studies.^{6,7, and 8}

In the present study no significant difference in immediate post-operative pain and analgesic need between two groups as noted. However, there is mixed evidence with respect to post-operative pain pattern for rubber ligation and sclerotherapy groups in different studies.

In this study, we evaluated the outcomes for one-sitting of both the procedures. However, in some studies more than one sitting of interventions has been also been reported^{8,9, and 10}.

Post operatively scanty bleeding after defecation and minimal bleeding was reported by 64% and 32% patients respectively at first follow-up, 48% and 12% patients respectively at second follow-up and 16% and 0% patients at third follow-up. Statistically, there was no significant difference between two groups at first and third follow-up, however, at second follow-up, proportion of those reporting minimal bleeding was significantly higher in rubber band ligation group(24%) as compared to that in sclerotherapy group (0%).



In this study despite limitation of follow-up, in most of the patients (96%) satisfactory outcomes were achieved within one month (Graph 3). Statistically, there was no significant difference with respect to final outcome in qualitative terms.

CONCLUSION

The findings of present study suggested that both sclerotherapy as well as rubber band ligation are useful modalities for management of Grade I/II internal Haemorrhoids. However, sclerotherapy seems to have a relatively better performance as far as early symptomatic relief is concerned.

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