

PROSPECTIVE STUDY ON DIFFERENT MODALITIES OF TREATMENT FOR SYMPTOMATIC HEMORRHOIDSM. P. Singh¹, Rajeev Bhargava², Renu Ranwaka³, Karampreet Singh⁴, Abhilasha Anand⁵**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: AIM: Prospective observational study of symptomatic pile masses reveals that all masses in a patient may not be of the same size or degree. Since long the only treatment for different degrees of piles had been hemorrhoidectomy. Acceptance for non-surgical modalities have come up in recent past and they are being utilized because they minimize the morbidity and save working hours. Present study has successfully utilized both surgical and non-surgical methods together in a patient in the same sitting. **METHODS:** 102 patients with symptomatic first to third degree hemorrhoids were studied. Depending upon the degree, treatment modality was selected. Depending on the treatment given patients were divided into four groups. Sclerotherapy alone (n=25), Sclerotherapy & Band ligation (n=17), Sclerotherapy and Hemorrhoidectomy (n=24), sclerotherapy, Band Ligation & Hemorrhoidectomy (n=36). All 102 patients were subjected to four finger Lord's Dilatation before the definitive procedures. All of them were followed for six months. Symptomatic relief, early side effects and need for re-treatment were evaluated. **RESULTS:** Satisfactory response was seen in 83 patients (I-20, II-13, III-20, IV-30). Sclerotherapy was more effective for 1st degree than for 2nd degree (p=0.04). Hemorrhoidectomy & band ligation were equally effective for uncomplicated 2nd degree piles. Use of hemorrhoidectomy had a definite edge in 3rd degree cases with or without associated external hemorrhoids and in 2nd degree masses with external pile mass. Local pain (n=32) and bleeding (n=6) were the most common complications. Single session was used in all the groups. None of the patients required additional treatment during follow up. Dietary modifications and life style changes were incorporated in the discharge advice for each patient. **CONCLUSIONS:** Conservative (non-surgical) methods can be effectively used with good results even for 2nd & 3rd degree piles. Sclerotherapy & band ligation have got different roles to play for different degrees of piles. Both were not used together for the same mass as it does not give any additional advantage. Use of surgery in 3rd degree masses with or without external mass has a definite edge over band ligation.

KEYWORDS: Hemorrhoids, conservative treatment, Banding, Dual Therapy, Triple therapy, Concomitant therapy

INTRODUCTION: Hemorrhoid is a common anorectal problem. In the treatment of 1st and 2nd degree piles methods like Sclerotherapy, infrared coagulation or cryotherapy may be helpful in 90% patients^(1,2) Surgeons not well versed with nonsurgical methods have opted for hemorrhoidectomy indiscriminately in the past with more morbidity and less satisfactory results.³ Judicious use of non-surgical methods can prevent recurrent admissions. We can use both band ligation and hemorrhoidectomy in 2nd & 3rd degree piles. ^(4,5) Surgery has an edge in patients having associated external pile mass. So philosophy of using non-surgical and surgical methods simultaneously in a patient for different degrees of masses was evolved and successfully utilized in the present study. Presence or absence of external pile mass was also taken into account.

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MATERIAL AND METHODS: 102 patients with first to third degree piles were prospectively treated and four groups emerged: (I) injection Sclerotherapy (n=25), (II) Sclerotherapy and Band ligation (n=17), (III) Sclerotherapy and hemorrhoidectomy (n=24), (IV) Sclerotherapy, Banding and hemorrhoidectomy (n=36). All patients underwent a per-rectal examination and proctoscopy. Those with concomitant medical illnesses, fissures, fistula in ano, rectal prolapse or anorectal growth were excluded from the study.

Patients presenting with bleeding per rectum, prolapsed pile mass, itching, mucous discharge or pain in the presence of visible hemorrhoids were symptomatic cases. The incidence of complaints was as follows (a) bleeding in 70, (b) prolapse in 27, (c) itching in 25, (d), mucus discharge in 23. Pain was as such not a prominent complaint as we segregated those diseases from our study which give rise to pain. Strangulated hemorrhoids were seen only in 3 patients.

Lord's dilatation (four finger ano-rectal stretching) was combined with all four groups. Patients from group I [n=25, 14 men, 11 women aged 46.5 (+/-11.5) years (mean +/- SD)] were treated with 1% polidocanol injection, 2- 3 ml injected submucosally at the base of each pile mass so as to produce local blanching (Striation sign).

Patients belonging to group II [(n=17, 9 men & 8 women aged 43.6 (+/- 9.5) years] after lords' dilatation were treated with both band ligation and injection sclerotherapy according to the need in a particular pile mass. Same mass was not concomitantly treated with both band ligation and sclerotherapy. Distilled water was injected sub-mucosally into the banded pile mass to reduce the incidence of slippage of the band, although is not widely reported in literature (Choi et al).

Patients belonging to group III [n=24, 14men & 10 women, aged 40.2 (+/-8.5) years] were subjected to lords' dilatation first and then treated by sclerotherapy and hemorrhoidectomy for different pile masses as per their degree. Sclerotherapy was done for 1st and 2nd degree masses without associated external pile, Milligan-Morgan hemorrhoidectomy for 3rd degree masses with or without external pile mass and for 2nd degree mass associated with external pile mass.

Patients belonging to group IV [n=36, 20 men &16 women, aged 47.4 (+/- 7.5) years] were subjected to first Lord's dilatation and then all the three procedures selected as per the size of the pile mass.

Weekly visits were continued till all hemorrhoids got obliterated, shrunk or wound healed. Following that they were seen on monthly basis for six months. Obliteration was defined as the absence of hemorrhoid projecting into the lumen or visible bleeding.

All follow up results were classified into three groups (a) no change- where the symptoms remained the same or worsened, (b) better- where symptoms regressed though not completely relieved, (c) relieved-where patients became asymptomatic. Results were expressed as mean +/- S.D. Statistical analysis was done by x2 test, Anova test and proportions (z) test as appropriate.

RESULTS: The groups were comparable for age, sex and distribution of hemorrhoids of different degrees (p=ns). The degree wise distribution in the four groups was as shown in table.

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	No change	Better	Relieved	Total
I (n=25) Sclerotherapy First degree and Second degree	0	5	20	25
II (n=17) Banding & Sclerotherapy sclerotherapy for 1st degree only, banding for 2 nd & 3 rd degree	0	4	13	17
III (n=24) Sclerotherapy and Hemorrhoidectomy sclerotherapy for 1st degree and haemorrhoidectomy for 2 nd & 3 rd degree piles	0	4	20	24
IV (n=36): All 3 methods Sclerotherapy for 1 st degree only, banding for second degree without external piles & haemorrhoidectomy for 2 nd degree with external pile mass and 3 rd degree piles	0	6	30	36

Table 1: Patient assessment of outcome at 6 months after completion of treatment

Early side effects experienced were pain and bleeding in all the four groups. One patient developed retention of urine and was managed by urethral catheterization. Complete follow up was obtained for six months in all 102 patients. It was found that injection sclerotherapy was significantly more effective in treating first degree hemorrhoids as compared to 2nd degree ($P=0.04$). In groups II, III & IV end results were affected significantly due to right selection of therapy for different degree of pile masses.

Applying the proportion (z) test to compare the efficacy of the three modalities of treatment in different degree of piles proved that right selection of treatment makes a significant difference in the net outcome. Sclerotherapy is most frequently used modality in our study. Surgery gives a definitive edge in 2nd degree piles over banding if associated with external pile mass. 3rd degree hemorrhoids without external mass responded well with band ligation but hemorrhoidectomy still emerged as the preferred modality for grade III hemorrhoids.

DISCUSSION: Our study included patients from 1st to 3rd degree hemorrhoids. Selection of modality was based on the degree of pile mass.^(6,7,8,9,10,11) Band ligation has compared favorably with hemorrhoidectomy in 2nd & 3rd degree piles with fewer side effects and higher patient acceptability.¹² Sclerotherapy was more than sufficient in 1st degree cases.^(13,14,15) Associated external pile with 2nd & 3rd degree internal hemorrhoids needs hemorrhoidectomy. Surgery has shown definitive edge in such patients over band ligation.

CONCLUSION: In conclusion, our study confirmed the efficacy and safety of the combined use of sclerotherapy, banding and hemorrhoidectomy together in different combinations with better outcome. Sclerotherapy is gold standard in 1st degree pile treatment. Banding is more acceptable in 2nd and 3rd degree pile without external pile. Surgery in such cases is preferred in case they are

associated with external pile mass. We have successfully utilized all the modalities in the same patient in the same sitting having pile masses at different degrees of progression. The combined use of modalities helped us in reducing the financial burden on patients as they had to undergo single sitting procedure, saved working hours and aided in early recovery as all the pile masses were addressed simultaneously.

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