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## Management of haemorrhoids in tertiary care centre

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### Abstract

**Aim:** To evaluate the outcome of sclerotherapy and closed haemorrhoidectomy.

**Materials & Methods:** 24 patients of anorectal disease were included and were operated in this period, 7 patients underwent closed haemorrhoidectomy, 9 patients were given sclerotherapy. Patients of anorectal abscess were excluded and correction of anemia done followed by posted to surgery. Grade I and II Haemorrhoids were treated with sclerosant and Grade III and IV are treated with closed haemorrhoidectomy. Both procedures were done under spinal anesthesia.

**Results:** 7 patients underwent closed haemorrhoidectomy and 9 patients underwent sclerotherapy. Postoperative complications in both groups were studied like pain, bleeding per rectum, mucosal discharge, urinary discharge and wound dehiscence are treated and follow up done. No case arrived with any symptoms of recurrence in the follow up of next 6 months.

**Conclusion:** Sclerotherapy is the preferred technique for hemorrhoids (especially Grade I & II) with minimal duration of stay, early return to the work and less post operative pain and it can be done as a daycare procedure. For Grade III& IV haemorrhoids, closed hemorrhoidectomy is ideal and beneficial.

**Keywords:** Management, haemorrhoids, tertiary care centre

### Introduction

Haemorrhoids are cushion sinusoids and they can be either external or internal. The main complaints are bleeding during or after defecation, pain, itching, prolapse and perianal soiling<sup>[1, 2]</sup>. Haemorrhoids affect between 4.4 and 36.4% of the general population<sup>[3]</sup>. Hemorrhoids are one of the common clinical conditions affecting most of the population by the age of 50 years. They occur at any age and can affect both males and females<sup>[3]</sup>. Only in the last 30 years have anatomical<sup>[4]</sup> and histological<sup>[5]</sup> studies been used to characterise their anatomy and aetiology<sup>[3]</sup>. This has led to resurgence in interest in the condition, associated with the development of a number of novel treatments. The exact etiology is unknown but the condition usually encountered in people adopted with westernized life style<sup>[6]</sup> Ferguson and Heaton said, "Hundred percent of the population does suffer from haemorrhoids at least once in their lifetime"<sup>[7]</sup> There are numerous modalities of treatment, namely, rubber band ligation, infrared photocoagulation, bipolar diathermy, sclerotherapy, cryotherapy, hemorrhoidectomy (open/closed), anal dilation, pile stitching. Among the newer ones, stapled hemorrhoidopexy performed using the circular anal stapler is recent advancement which have got enormous appreciation<sup>[3, 4]</sup>.

Sclerotherapy is the procedure to treat first, second and some third degree haemorrhoids. Complications are very few with this procedure, though infection and fibrosis have been reported in some studies. In clinical practice, III<sup>rd</sup> & IV<sup>th</sup> degree internal hemorrhoids are the main indication for hemorrhoidectomy. Other Indications for hemorrhoidectomy include acute complicated haemorrhoids such as strangulation or thrombosis.

Closed (Ferguson) hemorrhoidectomy and Open (Milligan-Morgan) hemorrhoidectomy are equally effective and safe, but Ferguson method is superior to the Milligan-Morgan method in term of long time patient satisfaction and continence. In our study we have done closed hemorrhoidectomy in all our patients.

### Aim

The present study, evaluates the outcome of sclerotherapy and closed haemorrhoidectomy.

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**Materials and Methods**

The comparative study done between March 2016 to September 2018, 24 patients of anorectal disease were included and were operated in this period, 7 patients underwent closed haemorrhoidectomy, 9 patients were given sclerotherapy. Exclusion: Patients of anorectal abscess and those willing for conservative management were excluded. 2 patients of prolapsed haemorrhoids had severe anemia, corrected with blood transfusion and operated. Comorbidities: One patient had a recent stroke for which he was on treatment he was on anticoagulant therapy which was stopped before the surgery. One patient had cardiac illness and was waiting for valve replacement. One patient had psychiatric illness, on treatment. Grade 1 and grade 2 Haemorrhoids were treated with sclerosant and Grade 3 and 4 are treated with closed haemorrhoidectomy. Both procedures were done under spinal anesthesia. In closed haemorrhoidectomy the prolapsed haemorrhoids were excised and the adjoining mucosa and skin were closed with absorbable suture (Catgut). In sclerotherapy group the sclerosing agent used was Polidocanol 3%, 2ml of foam Polidocanol injected at the base of the haemorrhoids (submucosa) and around the haemorrhoidal tissue (image no:1&2). Sterile pack soaked in Xylocaine jelly and Betadine was kept in both group for 12 hours. If the pain was severe the pack was removed earlier and dressing done. In all patients single preoperative dose of Ceftriaxone 1gm was given. Patients were started on oral antibiotics and analgesics after 12 hours, which was continued for 7 days. Sitz bath was started next morning in both groups, which was continued for 15 days twice daily. Hospital stay for closed haemorrhoidectomy group was 4 days and for sclerotherapy group was 2 days. Follow up was done on 7<sup>th</sup> and 15<sup>th</sup> day and after 1 month for both groups.



**Image 1:** injecting sclerosant (3%Polidocanol) into haemorrhoidal tissue.



**Image 2:** Injection and device used.

**Results**

In this study of 16 patients were included, out of which 7 patients underwent closed haemorrhoidectomy and 9 patients underwent sclerotherapy (Table no: 1). In closed haemorrhoidectomy group there were 4 males and 3 females (M: F= 4:3) and age ranging from 38 to 71 years.

**Table 1:** In closed haemorrhoidectomy group there were 4 males and 3 females

Sex	Sclerotherapy	Closed haemorrhoidectomy group
Male	8(88.8%)	4(57.1%)
Female	1(11.1%)	3(42.8%)

In sclerotherapy group there were 8 males and 1 female (M: F= 8:1) and age ranging from 28 years to 52 years. Clinical characteristics and presentation of the patients were detailed in Table no:2.

**Table 2: Various** presentations of the patient.

Presentations	No: of patients (%)
Bleeding per rectum	10(62.5%)
Mass per rectum	7(43.7%)
Perianal discharge	5(27.7%)
Constipation	8(50%)
Pruritus	6(37.5%)

Postoperative complications in both groups were as explained in the Table no 3. For urinary retention hot fermentation and encouraging to go to toilet. Pain was more severe in the closed haemorrhoidectomy group, and was directly related to the size of the pack kept. Injectable analgesics (Tramadol) and sedatives (Pentazocine and Diazepam) were infused in the drip in first 24 hours after surgery in all patients in both groups. In selected patients dose of analgesia was repeated in 24 hours. Bleeding was managed by giving Tranexamic acid and dressings were changed.

Two patients had wound dehiscence and fecal incontinence on 7<sup>th</sup> day of follow up which were managed conservatively with regular dressing and iv antibiotics. There is no recurrence in both groups.

**Table 2: Postoperative** complications

Complications	Sclerotherapy group	Closed haemorrhoidectomy
Urinary retention	0	2(28.5%)
Pain	1(11.1%)	7(100%)
Bleeding	Nil	2(28.5%)
Perineal hematoma	0	0
Submucosal abscess	0	0
Wound dehiscence	0	2(28.5%)
Stenosis	0	0
Faecal incontinence	0	2(28.5%)
Mucus discharge	5	0

**Discussion**

In our study the age distribution is from 38 years to 71, and only one patient presented less than 30years. Most of the patients are from 3<sup>rd</sup> to 5<sup>th</sup> decade similar to Jehan *et al.* [13].

Male population have more proportionate of hemorrhoids as compared to female ratio was 12:4., These finding are similarly well with male preponderance noted by Mohan *et al.* [15], and Ammanagi *et al.* [14].

Most common presentation is bleeding per rectum followed by constipation in our study, which is similar to the literature and

studies conducted by Bhuyia *et al.* [16] and Mohan *et al.* [15]. Most common post operative complication is pain which is consistently present in closed hemorrhoidectomy patients comparing to sclerotherapy which is very negligible or less in number similar to Arabi *et al.* [17] and Mac rae *et al.* [18].

Complications like anal stricture are not seen in our study which are present in the studies conducted by Ammangi *et al.* [14].

The incidence of urinary retention following benign anorectal procedures varies from < 1% to > 50% [19-21]. This incidence varied from 34% following haemorrhoidectomy to 4% after lateral internal sphincterotomy and 2% after fistulotomy. Haemorrhoidectomy was the single most important determinant of urinary retention in Zaheer *et al.*'s study [19]. In our study 2(28%) patients had urinary retention.

Incontinence after hemorrhoidectomy is associated with a high incidence of partial or full-thickness internal anal sphincter injury and occasionally external sphincter defects [22, 23, 24]. Incontinence has also been seen with intact sphincters, as the hemorrhoidal cushions are known to provide 15% of the patient's resting anal tone.

Recurrence is not seen in the follow up as compared to other studies other than technique, follow up period is short (6 months).

Post operative faster recovery, less hospital stay and early return to work are seen in sclerotherapy similar to many other studies and mucus discharge which is totally absent in hemorrhoidectomy is a troublesome in cases of sclerotherapy (5 out of 9 cases) presented with it some or the other time.

### Conclusion

Sclerotherapy is the preferred technique for hemorrhoids (especially Grade I & II) with minimal duration of stay, return to the work early and post operative pain less and it can be done as a daycare procedure. Grade III& IV closed hemorrhoidectomy is ideal and beneficial.

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