A cross sectional study of different modalities of haemorrhoids treatment

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DOI: https://doi.org/10.33545/surgery.2021.v5.i1f.630

Abstract
Haemorrhoids, are vascular structures in the anal canal. In their normal state, they are cushions that help with stool control. They become a disease when swollen or inflamed; the unqualified term "haemorrhoid" is often used to refer to the disease. The signs and symptoms of haemorrhoids depend on the type present. Internal haemorrhoids often result in painless, bright red rectal bleeding when defecating. External haemorrhoids often result in pain and swelling in the area of the anus. If bleeding occurs it is usually darker. Symptoms frequently get better after a few days. A skin tag may remain after the healing of an external hemorrhoid [1]. In our study, bleeding per rectum as the chief complaints was seen in 90 cases out of 100 cases selected. On comparing the presenting complaints of the patients our study had bleeding per rectum as the predominant complaint which was present in 90 out of 100 patients, this is comparable with studies by Murie et al. [7] Arabi and co workers, Marshman D [9], David Steinberg, in which bleeding per rectum was the most common complaint. Haemorrhoid treatment must be tailored to the severity of disease and the patient’s expectation.

Keywords: Haemorrhoids, surgery, conservative management

Introduction
Haemorrhoids are vascular structures in the anal canal. In their normal state, they are cushions that help with stool control. They become a disease when swollen or inflamed; the unqualified term "haemorrhoid" is often used to refer to the disease. The signs and symptoms of haemorrhoids depend on the type present. Internal haemorrhoids often result in painless, bright red rectal bleeding when defecating. External haemorrhoids often result in pain and swelling in the area of the anus. If bleeding occurs it is usually darker. Symptoms frequently get better after a few days. A skin tag may remain after the healing of an external hemorrhoid [1]. While the exact cause of haemorrhoids remains unknown, a number of factors that increase pressure in the abdomen are believed to be involved. This may include constipation, diarrhea, and sitting on the toilet for a long time. Haemorrhoids are also more common during pregnancy. Diagnosis is made by looking at the area. Many people incorrectly refer to any symptom occurring around the anal area as "haemorrhoids", and serious causes of the symptoms should be ruled out. Colonoscopy or sigmoidoscopy is reasonable to confirm the diagnosis and rule out more serious causes [2].

Often, no specific treatment is needed. Initial measures consist of increasing fiber intake, drinking fluids to maintain hydration, NSAIDs to help with pain, and rest. Medicated creams may be applied to the area, but their effectiveness is poorly supported by evidence [9]. A number of minor procedures may be performed if symptoms are severe or do not improve with conservative management. Surgery is reserved for those who fail to improve following these measures [3].

Approximately 50% to 66% of people have problems with haemorrhoids at some point in their lives. Males and females are both affected with about equal frequency. Haemorrhoids affect people most often between 45 and 65 years of age, and they are more common among the wealthy. Outcomes are usually good. The first known mention of the disease is from a 1700 BCE Egyptian papyrus [4].

Conservative treatment typically consists of foods rich in dietary fiber, intake of oral fluids to maintain hydration, nonsteroidal anti-inflammatory drugs, sitz baths, and rest. Increased fiber intake has been shown to improve outcomes and may be achieved by dietary alterations or the
consumption of fiber supplements. Evidence for benefits from sitz baths during any point in treatment, however, is lacking. If they are used, they should be limited to 15 minutes at a time. Decreasing time spent on the toilet and not straining is also recommended \(^6\).

**Procedures**

A number of office-based procedures may be performed. While generally safe, rare serious side effects such as perianal sepsis may occur.

- Rubber band ligation (RBL) is typically recommended as the first-line treatment in those with grade I to III disease. It is a procedure in which elastic bands are applied onto an internal haemorrhoid at least 1 cm above the pectinate line to cut off its blood supply. Within 5–7 days, the withered haemorrhoid falls off. If the band is placed too close to the pectinate line, intense pain results immediately afterwards. The cure rate has been found to be about 87% with a complication rate of up to 3%.
- Sclerotherapy involves the injection of a sclerosing agent, such as phenol, into the haemorrhoid. This causes the vein walls to collapse and the haemorrhoids to shrivel up.
- A number of other methods have been shown to be effective for haemorrhoids, but are usually used only when other methods fail. This procedure can be done using electrocautery and laser surgery. In those with grade III or IV disease, recurrence rates are high \(^6\).

**Surgery**

A number of surgical techniques may be used if conservative management and simple procedures fail. All surgical treatments are associated with some degree of complications including bleeding, infection, anal strictures and urinary retention, due to the close proximity of the rectum to the nerves that supply the bladder. Also, a small risk of fecal incontinence occurs, particularly of liquid, with rates reported between 0% and 28%. Mucosal ectropion is another condition which may occur after haemorrhoidectomy (often together with anal stenosis). This is where the anal mucosa becomes everted from the anus, similar to a very mild form of rectal prolapse \(^7\).

**Objective:** A Cross Sectional Study of Different Modalities of Haemorrhoids Treatment

**Methodology**

A cross sectional study was done on 100 patients selected in tertiary care hospital, admitted with between July 2018 to Dec 2018.

**Inclusion Criteria**

- Patients who presented with haemorrhoids for the first time after pathological haemorrhoids are ruled out

**Exclusion Criteria**

- Patients with recurrent haemorrhoids
- Patients who have pathological haemorrhoids
- Patients with bleeding tendencies

**Results**

<table>
<thead>
<tr>
<th>Bleed Per Rectum</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>90</td>
</tr>
<tr>
<td>Absent</td>
<td>10</td>
</tr>
</tbody>
</table>

In our study, bleeding per rectum as the chief complaints was seen in 90 cases out of 100 cases selected.

**Table 2:** Grades of Haemorrhoids in the Study Groups

<table>
<thead>
<tr>
<th>Hemorrhoids</th>
<th>Procedure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>Open</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Stapled</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>Banding</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>Conservative</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>28</td>
</tr>
</tbody>
</table>

**Discussion**

On comparing the presenting complaints of the patients our study had bleeding per rectum as the predominant complaint which was present in 90 out of 100 patients, this is comparable with studies by Murie et al. \(^7\), Arabi and co workers, Marshman D \(^9\), David \(^9\) Steinberg, in which bleeding per rectum was the most common complaint. In a study by Paulvannan and Kumar \(^10\) in which 90 patients were studied 21 patients had discomfort, 29 had pain, 1 had bleeding and 8 patients had urinary retention. In our study of 100 patients 10 patients had urinary retention, 1 had bleeding and 1 patient had pain.

In a study by Ayman et al. \(^11\) it was shown that RBL is a simple, safe and effective method for treating symptomatic second and third degree haemorrhoids as an outpatient procedure with significant improvement in quality of life. RBL does not alter ano-rectal function. In comparison to this study we had a similar result in the method of treatment and found that RBL is safe and effective for treating symptomatic second degree haemorrhoids and they have better quality of life from the immediate post operative period which continues.

In another study it was shown that though conventional open diathermy technique was quicker to perform than the Stapled haemorrhoidectomy and hospitalization was similar, but conventional open diathermy technique patients felt more pain during defecation for two weeks, and analgesic requirements were more for up to six weeks and they resumed to work later than Stapled haemorrhoidectomy \(^12\). These results are compared to our study in which stapler haemorrhoidectomy was better than open haemorrhoidectomy when pain was compared between the two procedures.

In another study it was shown that the operative time and time of work were significantly shorter and also were fewer postoperative complications in open Milligan-Morgan procedure in comparision to radical haemorrhoidectomy using an electrothermal device originally devised to seal vessels in abdominal operations \(^13\). This was comparable to our study that the patients returned to their work early. In another study it was shown that the majority of patients (76%) had no loss of time from work. 11(22%) patients returned to work after 24 hours and only one case had significant loss of time from work i.e., one week because of perianal haematoma when rubber band ligation was compared to conventional haemorrhoidectomy \(^14, 15\). This was comparable to our study that the patients returned to their work early.

**Conclusion**

Haemorrhoid treatment must be tailored to the severity of disease and the patient's expectation. Conservative (including dietary, hygienic and medical) treatment is effective in
managing patients during the early stages of haemorrhoids. Several new minimally invasive surgical options, including stapled mucopexy and Doppler-guided haemorrhoid artery ligation, are now being offered to patients with grade III haemorrhoids. Patients with grade IV haemorrhoids need to undergo a haemorrhoidectomy, the outcome of which is improved by the use of radiofrequency vessel sealing devices.

References
15. Indian Journal for the Practising Doctor. A Retrospective Study and Evaluation of Rubber Band Ligation as a