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# General Aspect of Hemorrhoids - Current View

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## Abstract

The distal anal canal's submucosal vascular tissue dilates, causing haemorrhoids. When the connective tissue supporting this vascular tissue weakens, the haemorrhoids descend or prolapse. Internal haemorrhoids are viscerally innervated and, as a result, painless. They begin above the dentate line, which is the intersection of the columnar and squamous epithelium. External haemorrhoids can be painful, have somatic innervation, and start below the dentate line. Internal and external (mixed) haemorrhoids are present in certain patients. The majority of haemorrhoid sufferers typically have minor symptoms that can be managed with over-the-counter topical medications. When symptoms worsen, patients typically seek therapy. Prolapse or painless rectal bleeding are the usual symptoms of internal haemorrhoids. In addition to bleeding, external haemorrhoids can thrombose and cause excruciating agony. To reduce swelling and discomfort, medical therapy should begin with stool softeners and local therapy. Surgery is necessary if medical treatment is insufficient. The preferred method of treating haemorrhoids in grades 1 and 2 is rubber band ligation. Patients with grade 3 haemorrhoids may have stapled Hemorrhoidopexy, excisional haemorrhoidectomy, or rubber band ligation. Rubber band ligation has a higher recurrence rate than stapled Hemorrhoidopexy and excisional haemorrhoidectomy, but it also has less postoperative pain and fewer complications. For the treatment of grade 4 haemorrhoids, excisional haemorrhoidectomy or stapled Hemorrhoidopexy is advised. Although stapled Hemorrhoidopexy has a greater recurrence rate, it has a quicker postoperative recovery. Topical antispasmodics, fibre supplements,

opioids, and nonsteroidal anti-inflammatory medications can all be used to relieve postoperative pain following an excisional haemorrhoidectomy. Conservative treatment or excision are two options for thrombosed external haemorrhoids.

**Keyword:** Hemorrhoids, Management, Diarrhoea, Hemorrhoidopexy,

## Introduction

### Hemorrhoids

Haemorrhoids are swollen, inflamed veins around your anus or the lower part of your rectum. There are two types:

- External haemorrhoids, which form under the skin around your anus
- Internal haemorrhoids, which form in the lining of your anus and lower rectum[1]

### Cause

**The causes of haemorrhoids include[2]**

- straining during bowel movements
- sitting on the toilet for long periods of time
- chronic constipation or diarrhoea
- a low-fiber diet
- weakening of the supporting tissues in your anus and rectum that happens with aging
- pregnancy
- often lifting heavy objects

### Prevalence Rate

The worldwide prevalence of hemorrhoids (piles) in the general population is estimated to be around 4.4%. However, some studies suggest that a significant portion of the population may experience hemorrhoids at some point in their lives.

### Worldwide Prevalence

A study estimates that around 4.4% of the general population experiences hemorrhoids.

### Life-Time Prevalence

Some sources suggest that at least 50% of the US population may experience hemorrhoids at some point in their lives.

### Age

The prevalence of hemorrhoids tends to increase with age, with a peak in persons aged 45-65 years.

### Gender

Some studies indicate that men are more prone to hemorrhoids than women.

### Other Factors

Constipation, a high BMI, and a family history of hemorrhoids can also increase the risk of developing them

### Clinical Features

Many people ignore medical advice when treating haemorrhoid issues. When symptoms worsen, patients may visit doctors. Due to hygienic issues, anal discharge and itching can result from both internal and external haemorrhoids. Prolapse or painless rectal bleeding, which manifests as blood on the toilet paper or bleeding during bowel movements, are the most common symptoms of internal haemorrhoids. Due to engorgement, external haemorrhoids may cause discomfort in the anal region. Acute pain may result from external haemorrhoid thrombosis.

### Diagnosis

A number of anorectal conditions can present with symptoms that are similar to those of haemorrhoids; changes in bowel habits, abdominal pain, weight loss, rectal bleeding with blood in the stool, or a family history of colon cancer are factors that should prompt consideration of a colonoscopy. A physical examination should include an abdominal examination, perineum inspection, digital rectal examination, and anoscopy;

digital rectal examination alone cannot diagnose or exclude internal haemorrhoids; anoscopy is necessary.Prolapsed internal haemorrhoids show up as dark pink, shiny, and occasionally sensitive masses near the anal edge on anoscopy, while internal haemorrhoids appear as dilated purplish-blue veins. External haemorrhoids have a reddish colour and are quite sensitive if thrombosed. They also look less pink. There may be perianal skin tags, which are frequently left over from earlier external haemorrhoids. For all individuals over 40 with haemorrhoidal symptoms and rectal bleeding, some doctors advise a colonoscopy.[3] The American Society of Colon and Rectal Surgeons suggests getting the patient's medical history, performing a physical examination with anoscopy, and undertaking additional endoscopic evaluation if inflammatory bowel disease or cancer is detected.[4]

**Management of Haemorrhoids**

Medical care should be sought for grade 1 haemorrhoids. Every patient with haemorrhoids should still be able to pass their large, soft stools with ease. After surgery, this is especially important since straining and difficult stool passage worsen pain and blood and delay the healing process. Eating enough fibre and water softens the faeces. A meta-analysis of seven randomised studies found that for patients with symptomatic haemorrhoids, fibre supplementation with psyllium, sterculia, or unprocessed bran decreased bleeding, discomfort, prolapse, and itching.[5] Over-the-counter topical medications containing steroids, anaesthetics, astringents, and/or antiseptics are commonly recommended for all degrees of haemorrhoidal disease. However, there are no randomised studies that support its use. Because of their atrophic effects on the skin, creams containing steroids shouldn't be used for extended periods of time. Despite the fact that sitz baths are commonly recommended, a review of the literature found no benefits for a number of anorectal disorders, including haemorrhoids.[6]

**Thrombosed External Hemorrhoids**

The discomfort from thrombosed external haemorrhoids is intense and sudden. If nothing is done, the discomfort usually goes away in two to three days, and it becomes better over the course of several weeks as the thrombus slowly goes away. Stool softeners and analgesics might be helpful. For pain relief, topical therapy including nifedipine and lidocaine cream works better than lidocaine (Xylocaine) by itself.[7] Excision or incision and thrombus evacuation within 72 hours of symptom onset offer more fast pain relief than conservative treatment for those experiencing excruciating pain from thrombosed haemorrhoids.[8] Local anaesthesia can be used for both operations, and the wound that results can either be sutured or left open.[9]

**Hemorrhoids in Pregnancy**

Women are more likely to experience symptomatic haemorrhoids during pregnancy, which often go away after birth. The risk of triggering labour makes surgical intervention inappropriate. If thrombosed external haemorrhoids need to be removed, conservative treatment is advised.

**Surgical Treatment of Internal Hemorrhoids**

Primary care offices can treat the majority of people with grade 1 or 2 haemorrhoids and many with grade 3 haemorrhoids. Patients with mixed haemorrhoids and those for whom office-based treatment is inadequate may need to be treated in surgical suites equipped with anaesthesia facilities. The three most popular surgical procedures are excision, fixation methods (such as hemorrhoidopexy), and ligation or tissue destruction.

**Rubber Band Ligation**

Internal haemorrhoids are frequently treated in offices with rubber band ligation, which is also frequently advised as the first surgical procedure for haemorrhoids of grades 1 to 3.[10] A rubber band is wrapped around a section of the superfluous anorectal mucosa during the surgery. This results in tissue necrosis and haemorrhoid sloughing within five to seven days by strangling the hemorrhoid's blood supply. Fixation of the local mucosa to the underlying muscle occurs when the little remaining ulcer heals. A range of tools are available to apply the bands, and the process is carried out using an anoscope. The surgery can be carried out without anaesthesia since the bands are positioned in the insensate zone, which is above the dentate line. Nevertheless, the area should be tested for sensation before applying the band because of anatomic variation in innervation. One to three bands can be applied per session, depending on the surgeon's preference and patient tolerance. Subsequent bandings can occur at four- to six-week intervals.[11] Complications such as vasovagal response, pain, abscess formation, urinary retention, bleeding, band slippage, and sepsis occur in less than 2 percent of patients undergoing rubber band ligation.[12,13,14] Secondary thrombosis of the external hemorrhoidal component may occur in 2 to 11 percent of patients.[15] Rubber band ligation is not recommended for people on warfarin (Coumadin) because to the possibility of postoperative haemorrhage. Five to seven days prior to the procedure, aspirin and other antiplatelet medications should be stopped, and five to seven days following the treatment, they should be resumed.

**Infrared Coagulation**

A polymer probe tip applies radiation from a tungsten-halogen lamp to the hemorrhoid's base in order to perform infrared coagulation. This results in an ulcer that eventually heals, causing cicatrisation, or scarring, which lowers the hemorrhoid's blood flow. Success rates are lower than with rubber band ligation, however the surgery is well tolerated. Patients receiving anticoagulant medication may be candidates for infrared coagulation.[16]

**Excisional Hemorrhoidectomy**

In excisional hemorrhoidectomy, an elliptical incision is made over the hemorrhoidal complex, which is then mobilized from the underlying sphincter and excised. The wound is closed with sutures.[17] For patients with grade 3 or grade 4 haemorrhoids, excisional haemorrhoidectomy is the most effective treatment to reduce recurrent symptoms, according to many randomised controlled trials (RCTs) and meta-analyses.[18] Additionally, it is advised for people with recurring haemorrhoids and mixed haemorrhoids for whom no other treatment has worked.[19,20]

**Stapled Hemorrhoidopexy**

Stapled hemorrhoidopexy is an alternative treatment for grades 2 to 4 hemorrhoids.[21] The device eliminates a circumferential column of mucosa and submucosa just above the hemorrhoids, thus stopping the blood flow. The ring of staples restores anatomy and function by repositioning the downwardly displaced vascular cushions.[22] Following surgery, patients have a circular staple line above the dentate line, which gradually disappears into the mucosa. For several months following the procedure, staples may be visible in the rectum and may result in rectal bleeding. Stapled hemorrhoidopexy is better than excisional haemorrhoidectomy in terms of postoperative pain, recovery time, and sequelae such faecal urgency and pruritus. Nevertheless, it is linked to a greater long-term

risk of recurrent haemorrhoids and the requirement for further treatments. [22] Similar patient satisfaction between the operations is shown by both short- and long-term statistics, indicating that the early postoperative advantages of stapled Hemorrhoidopexy may outweigh the higher risk of needing more surgery.[23]

**Postoperative Care**

While stapled Hemorrhoidopexy and rubber band ligation are usually painless, excisional haemorrhoidectomy results in severe postoperative pain. Nonsteroidal anti-inflammatory medications, in addition to opioids, are typically required. On the other hand, constipation brought on by drugs might result in loose staples, pain, increased bleeding, and suture collapse. After every procedure, bulking agents and stool softeners are advised. Especially following an excisional haemorrhoidectomy, the region can be kept clean with Sitz baths and warm water sprays. Topical diltiazem and 10% metronidazole (Metrogel) administered three times a day have been demonstrated to reduce postoperative pain; these formulations are not commercially available but can be acquired from a compounding pharmacy. By relaxing internal anal sphincter spasms, topical nitro-glycerine 0.2% administered twice day reduces postoperative discomfort.

**Conclusion**

One of the most prevalent anorectal disorders is haemorrhoidal disease. Patients with Grade I and Grade II haemorrhoids may be provided non-operative options, such as medicinal treatment or office procedures. Surgery should be taken into consideration, nevertheless, if these methods are unsuccessful. In addition to coexisting anorectal disorders, surgical treatment for patients with Grade III and Grade IV haemorrhoids should be provided and customised for each patient based on the degree of external anorectal component and the intensity of symptoms. Prolapsing haemorrhoidal disease can now be treated with a variety of surgical techniques, the most of which have comparable success rates.

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