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Review Article

**A REVIEW ON THE MANAGEMENT OF HEMORRHOIDS****Harshitha B<sup>1\*</sup>, Yamini Krishna K<sup>1</sup>, Sai Lakshmi Lahari N<sup>1</sup>,  
Dr. Kishore Babu M<sup>2</sup>, Dr. Thirumala Naik K<sup>3</sup>**<sup>1\*</sup>Pharm D, Intern, Krishna Teja Pharmacy College, Tirupati, Andhra Pradesh, India.<sup>2\*</sup>M.Pharm, Ph. D, Department Of Pharmaceutics, Principal, Krishna Teja Pharmacy College,  
Tirupati, Andhra Pradesh, India.<sup>3\*</sup> Pharm D, Associate Professor, Krishna Teja Pharmacy College, Tirupati,  
Andhra Pradesh, India.**Article Received:** August 2021**Accepted:** September 2021**Published:** October 2021**Abstract:**

*Hemorrhoids or piles are typically where swollen veins inside the rectum or outside the anus can cause pain, anal itching, and rectal bleeding. Hemorrhoids can be affected by any age group of people. It affects people most often at the age of 45 and 65 years. Management of hemorrhoid disease ranging from conservative treatment to office-based procedure and surgical treatment. For the majority of patients simple dietary, lifestyle modification, topical and over-the-counter drugs, and sitz bath will provide symptomatic relief. The surgical and office-based procedure should be done for patients who do not respond to conservative treatment. However, it is clearly stated that treatment option is based on patient choice, convenience, and degree of hemorrhoids.*

**Key words:** Hemorrhoids, Piles, Management, Hemorrhoidectomy

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**INTRODUCTION:**

Hemorrhoids are very common, affecting 1 in 4 of the population which results in community and hospital practice burden. <sup>(1)</sup> Hemorrhoids are a common anorectal condition defined as distal displacement of normal anal cushions. They represent medical and socioeconomic problems that have been associated with the etiology of hemorrhoidal development which includes constipation and prolonged straining. <sup>(2)</sup> Some studies show that 5 to 10% of patients who are not responding to conservative treatment surgical treatment should be done. <sup>(3)</sup> Hemorrhoids may be internal, external, or both with single or multiple prolapses.

Hemorrhoid disease have an effect on quality of life, and it can be managed with surgical and non-surgical Hemorrhoid methods.

Grading of hemorrhoids:

Internal hemorrhoids are classified based on their degree of prolapse.

Grade I hemorrhoids in which they cause bleeding but do not protrude.

Grade II hemorrhoids in which they protrude with defecation and reduce spontaneously.

Grade III hemorrhoids protrude and are reduced by hands.

Grade IV hemorrhoids in which they become permanently prolapsed.

External hemorrhoids may have some somatic intervention and they may cause acute pain. <sup>(4)</sup>

**Management of hemorrhoids of grade I and grade II:****Conservative treatment:**

The conservative treatment of hemorrhoids is to modify the lifestyle of a patient so that the patient may decrease the passing of hard stool, which can be reduced by increasing consumption of a high fiber diet and oral fluids. Some of the factors may also reduce the straining by improving anal hygiene, avoiding unnecessary medication that causes either constipation or diarrhea. <sup>(5-7)</sup>

Some of the oral medications like flavonoids have been used as a dietary supplement in the treatment of hemorrhoids. <sup>(8)</sup>

Topical treatment:

In topical treatment, we can control the symptoms of hemorrhoids rather than cure the disease. some of the topical preparations include creams and suppositories which mainly contain the ingredients like local

anesthesia, corticosteroids, and anti-inflammatory drugs. <sup>(9)</sup>

Thrombosed external hemorrhoids:

It can cause severe pain, so conservative treatment may be beneficial. Topical treatment with nifedipine and lidocaine cream is more effective to reduce the symptoms. <sup>(10)</sup> Inpatient with more severe pain surgical removal of thrombus must be done within 72 hrs which can provide more pain relief rather than conservative treatment. <sup>(11)</sup>

**Office procedures:**

According to ASCRS guidelines for the management of hemorrhoids the grades including I, II, and III and patients who are not responding to conservative treatment may use an office-based procedure which can decrease the blood flow to hemorrhoids. The mainly used office-based procedure includes (1) Rubber band ligation (RBL), (2) Sclerotherapy, (3) Infrared coagulation, (4) Laser therapy. <sup>(12)</sup>

**Rubber band ligation:**

This method is most commonly used in grade I and II hemorrhoids and also used in some cases of III degree hemorrhoids which show a 99% of success rate with low complications. This procedure can be treated with single/ multiple hemorrhoids per session. In some cases, multiple sessions show rare complications like intra or post-procedural pain, ulceration, late hemorrhage, and sepsis which can be rare. <sup>(13)</sup> This procedure must be avoided in patients who are suffering from coagulation disorders such as thrombosed bocytopenia, anticoagulated with warfarin and antiplatelet therapy which may cause bleeding. Such patients should be treated with Sclerotherapy and infrared coagulation. Patients with immunocompromised and cardiac malformation and valvular dysfunction must use prophylactic antibiotics to avoid complications. <sup>(14)</sup>

**Injection sclerotherapy:**

This method is mostly used in patient suffering from bleeding hemorrhoids. Some of the materials include Ethanolamine oleate, 5% phenol in almond oil, and sodium morrhuate must be used which can reduce inflammation. After completion of this therapy, the patient requires mild analgesics and we have to educate the patient about the diet, stool softeners and sitz bath must be provided. This therapy may cause some complications like a rectal abscess, retroperitoneal sepsis, pulmonary allergic reaction which can be reduced by using hypertonic saline and 5% dextrose. <sup>(15-18)</sup>

**Infrared coagulation:**

This procedure is done only one session per patient visit. The main advantage of this procedure includes painless, immediate response, and low rate of complication. <sup>(19)</sup> This procedure is suitable for the management of grade I and grade II hemorrhoids. <sup>(20)</sup>

**Laser therapy:**

This method is mostly used in the patient suffering from bleeding hemorrhoids. Some of the materials include Ethanolamine oleate, 5% phenol in almond oil, and sodium morrhuate must

The Nd: YAG laser was 1<sup>st</sup> utilized in ano-rectal surgery. Senagore et al<sup>(21)</sup>, stated that no patient care advantage was associated with Nd: YAG laser for excisional hemorrhoidectomy. Later some of the consequences came with CO<sub>2</sub> laser and it was improved later. Paper et al<sup>(22)</sup>, in their study found that patients treated with CO<sub>2</sub> laser open hemorrhoidectomy result in less post-operative pain.

**Management of grade III and IV hemorrhoids:****Operative treatment:**

An operation is suggested when non-operative approaches have failed or when complications have occurred. Only patients with grades III and IV should receive the operative treatment. <sup>(23)</sup>

Conventional hemorrhoidectomy:

Excisional hemorrhoidectomy is considered to be the most effective treatment for hemorrhoids, however, some of the complications include mostly postoperative pain. Mostly open and closed hemorrhoidectomy is done for the treatment of hemorrhoids. <sup>(24)</sup> Mostly surgical hemorrhoidectomy is a painful procedure and it is important to note that patients undergoing hemorrhoidectomy must prescribe a perioperative pain package like laxatives, analgesics, and anesthetic which may help to reduce the pain for the first post-operative motion. Some prophylactic oral metronidazole, <sup>(25)</sup> topical diltiazem, <sup>(26)</sup> topical glyceryl trinitrate, or injecting botulinum toxin<sup>(27)</sup> must help reduce the pain after surgery.

Doppler guided hemorrhoidal artery ligation:

This procedure is performed by using a proctoscope with an inbuilt Doppler probe which detects the hemorrhoidal arteries in anal cushions and it is ligated by using absorbable sutures. It is thought to reduce the size of hemorrhoids and it has the advantage that this procedure is painless. <sup>(28)</sup> However, this procedure has some complications which include bleeding, thrombosis, urinary retention. <sup>(29)</sup>

**Stapled hemorrhoidopexy:**

This procedure is carried out by designed stapling gun process which reduces the prolapsing of hemorrhoid and also reduces the size of hemorrhoid and interrupts the feeding arteries of hemorrhoid as similar to Doppler method. However, this technique would be more effective and less painful when compared with conventional haemorrhoidectomy and it gives quick to recover. <sup>(30)</sup>

**Post operative management after hemorrhoid surgery:**

After the hemorrhoidal surgery, the patient must be concentrated on analgesia, avoidance of constipation problems, and urinary retention. However, a variety of analgesics have been recommended to the patient which consists of oral and parenteral narcotics. <sup>(31-40)</sup> Administration of local infiltration of bupivacaine reduces the long-term pain reduction. <sup>(41,42)</sup> Urinary retention is a major drawback in post hemorrhoidectomy and it shows the incidence rate up to 1-52%. <sup>(43-46)</sup> So the best approach is to prevent the perioperative fluid administration to 250ml, which avoids the usage of spinal anesthesia, avoidance of anal packing, and oral analgesic regimen. <sup>(43)</sup>

Perioperative bleeding occurs within less than 24 hrs mostly in 1% of cases. <sup>(47)</sup> Delayed hemorrhage also occurs mostly in 0.5- 4% cases. To control postoperative bleeding suture ligation or tamponade at the bedside by foley catheter or anal packing must be done. <sup>(48,49)</sup> However this outcome of secondary hemorrhage shows a good process with no risk of recurrent bleeding.

**CONCLUSION:**

Hemorrhoidal disease is the most common ano-rectal condition. Treatment of hemorrhoids mainly depends on lifestyle modification to surgical process depending upon their degree of prolapse and severity of symptoms. The surgery process is only recommended for those who are not responding to outpatient treatment. The patient must be well educated about the diet process and lifestyle modification. Hence improvement in our understanding of hemorrhoidal disease is needed for the development of novel and creative methods for the treatment of hemorrhoids.

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