

Hemorrhoids, a brief study

© Dr. Rajneesh Kumar Sharma

B.Sc., B.H.M.S., M.D. (Hom.), h.M.D. (U.K.), D.I. Hom. (London), D.Lit. (U.K.)

Homoeo Cure & Research Centre P. Ltd.

N.H. 74- Moradabad Road, Kashipur (Uttaranchal) INDIA - 244713

Ph- 91-05947- 260327, Fax- 91- 5947- 260327, Cell- 9897618594

Introduction

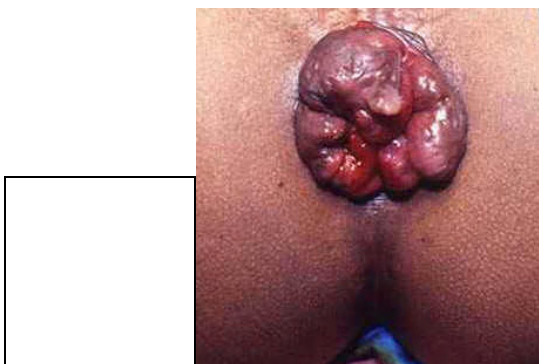
Every general practitioner sees a large number of patients who suffer from problems associated with venous insufficiency. Two of the most common manifestations of venous insufficiency are varicose veins and hemorrhoids. The prevalence of these two conditions is astonishing. In population studies the prevalence of varicose veins has been reported to be 10-15 percent for men and 20-25 percent for women. In a recent cross-sectional study, the age-adjusted prevalence of varicose veins was 58 percent for men and 48 percent for women. Over three-quarters of individuals in the United States have hemorrhoids at some point in their lives, and about half of the population over age 50 requires treatment.

The Merck Manual defines hemorrhoids as “Varicosities of the veins of the hemorrhoidal plexus, often complicated by inflammation, thrombosis, and bleeding. It has been suggested this is an oversimplification of the nature of hemorrhoids. A more recent definition is, “Vascular cushions, consisting of thick submucosa containing both venous and arterial blood vessels, smooth

muscle, and elastic connective tissue. While everyone has this tissue, it is the enlargement, bleeding and protrusion that create pathology. The crossroads to the development of varicose veins and hemorrhoids is the loss of vascular integrity. Considering the combined prevalence of varicose veins and hemorrhoids, venous insufficiency and its manifestations are an extremely common medical problem that every physician should be prepared to treat.

A precise definition of hemorrhoids does not exist, but they can be described as masses or clumps (“cushions”) of tissue within the anal canal that contain blood vessels and their surrounding, supporting tissue made up of muscle and elastic fibers. The anal canal is the last four centimeters through which stool passes as it goes from the rectum to the outside world. The anus is the opening of the anal canal to the outside world.

Although most people think hemorrhoids are abnormal, they are present in everyone. It is only when the hemorrhoidal cushions enlarge that hemorrhoids can cause problems and be considered abnormal or a disease.



Hemorrhoids at a glans

Historical Perspective on Hemorrhoids

Hemorrhoids are mentioned in ancient medical writings of every culture, including Babylonian, Hindu, Greek, Egyptian, and Hebrew. The word “hemorrhoid” is derived from the Greek “haema” = blood, and “rhoos” = flowing, and was originally used by Hippocrates to describe the flow of blood from the veins of the anus. Prior to the 1800s hemorrhoids were treated simply by poultice, bed rest, or, in difficult cases, by the application of a red hot poker. A simpler method was prayer to the patron saint of hemorrhoid sufferers, St. Fiacre, an Irish priest who lived in the seventh century. Injection therapy was begun in 1869 by Morgan of Dublin using iron persulfate, and was a relief to many who had endured the medical treatment of the time. As late as 1888 the only other recommended treatment (apart from the above mentioned) was abstinence from alcohol, sitting in cane chairs, and half a pint of cold spring water injected into the rectum after a morning fast. The founding of St. Mark’s Hospital in 1935 by Fredrick Salmon, who is given credit for the first ligation of hemorrhoids, marked a turning point in the treatment of hemorrhoids.

Prevalence of hemorrhoids

Although hemorrhoids occur in everyone, they become large and cause problems in only 4 percent of the general population. Hemorrhoids that

cause problems are found equally in men and women, and their prevalence peaks between 45 and 65 years of age.

Anatomy of hemorrhoids

The arteries supplying blood to the anal canal descend into the canal from the rectum above and form a rich network of arteries that communicate with each other around the anal canal. Because of this rich network of arteries, hemorrhoidal blood vessels have a ready supply of arterial blood. This explains why bleeding from hemorrhoids is bright red (arterial blood) rather than dark red (venous blood), and why bleeding from hemorrhoids occasionally can be severe. The blood vessels that supply the hemorrhoidal vessels pass through the supporting tissue of the hemorrhoidal cushions.

The anal veins drain blood away from the anal canal and the hemorrhoids. These veins drain in two directions. The first direction is upwards into the rectum, and the second is downwards beneath the skin surrounding the anus. The dentate line is a line within the anal canal that denotes the transition from anal skin (anoderm) to the lining of the rectum.

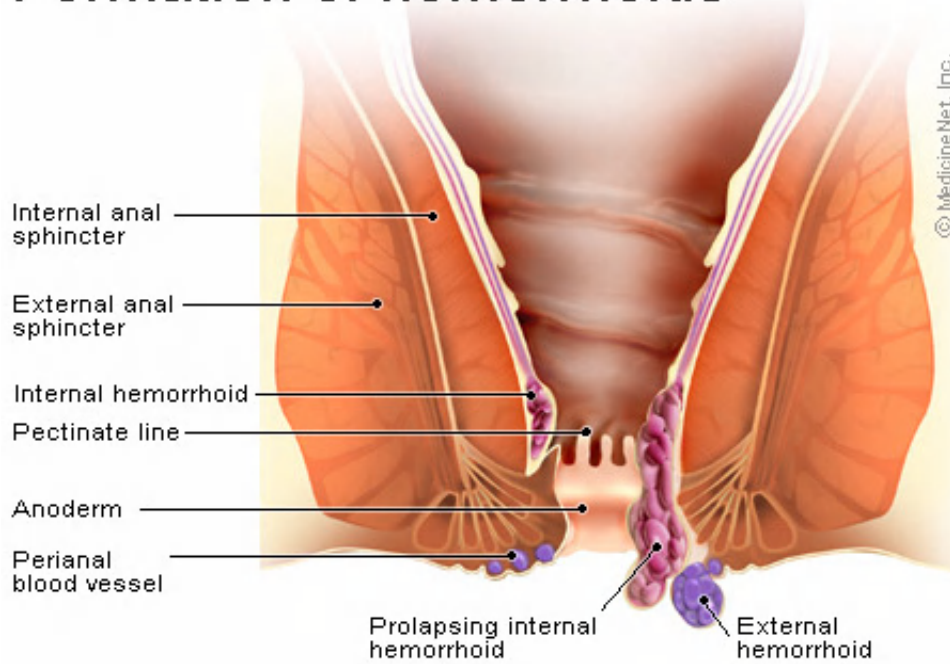
Formation of hemorrhoids

If the hemorrhoid originates at the top (rectal side) of the anal canal, it is referred to as an internal hemorrhoid. If it originates at the lower end of the anal canal near the anus, it is referred to as an external hemorrhoid.

Technically, the differentiation between internal and external hemorrhoids is made on the basis of whether the hemorrhoid originates above or below the dentate line (internal and external, respectively).

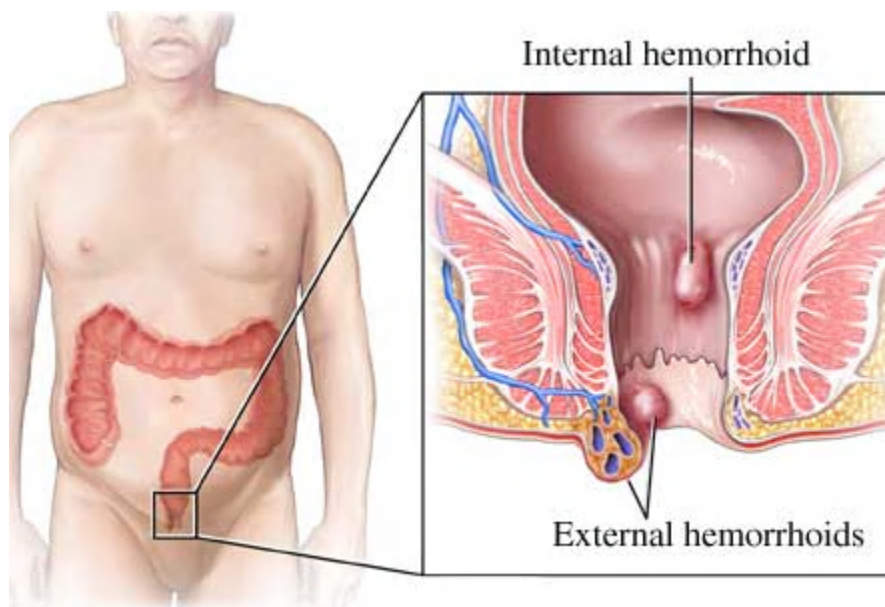
As discussed previously, hemorrhoidal cushions in the upper anal canal are made up of blood vessels and their supporting tissues. There usually are three major hemorrhoidal cushions oriented right posterior, right anterior, and left lateral. During the formation of enlarged internal hemorrhoids, the vessels of the anal cushions swell and the supporting tissues increase in size. The bulging mass of tissue and blood vessels protrudes into the anal canal where it can cause problems. Unlike with internal hemorrhoids, it is not clear how external hemorrhoids form.

Formation of hemorrhoids



Hemorrhoid Histology

As mentioned, there are variant definitions of the histology of the hemorrhoid tissue, but they are universally classified according to anatomical origin. Internal hemorrhoids consist of redundant mucous membrane of the anal canal with the origin above the dentate (ano-rectal) line. External hemorrhoids have an epithelial component and originate below the dentate line. Internal hemorrhoids are further graded based on the extent to which the tissue descends into the anal canal.



Grading of Hemorrhoids

First degree

“The mucosa barely prolapses, but with severe straining may be trapped by the closing of the anal sphincter. Subsequently, venous congestion occurs occasionally, resulting in discomfort and/or bleeding. Clinically speaking

there is no obvious external abnormality.”

Second degree

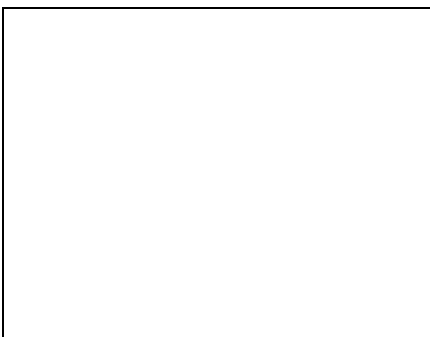
“With further protrusion of the mucosa, the patient complains of an obvious lump, but this disappears spontaneously and rapidly after defecation unless thrombosis occurs.”

Third degree

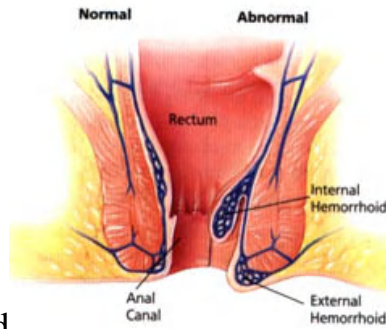
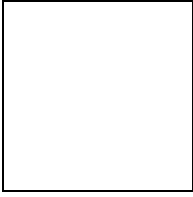
“In chronic hemorrhoidal disease, the persistent prolapsing produces dilatation of the anal sphincter, and the hemorrhoids protrude with minimal provocation and usually require manual replacement.”

Fourth degree

“These are usually described as external hemorrhoids and are protruding all the time unless the patient replaces them, lies down, or elevates the foot of the bed. In these fourth degree hemorrhoids, the dentate line also distends, and there is a variable external component consisting of redundant, permanent perianal skin.”



A view of Internal piles through Sigmoidoscopy



Etiological Factors

The exact cause of enlarged and symptomatic hemorrhoids is debated, and numerous etiologies have been suggested. Some of the earliest proposed etiologies included temperament, body habits, customs, passions, sedentary life, tight-laced clothes, climate, and seasons. Recent studies implicate gravity, intrinsic weakness of the blood vessel wall, heredity, increased intra-abdominal pressure from many causes, including prolonged forceful valsalva during defecation or resistance training, obstruction of venous outflow secondary to pregnancy or pelvic masses, and constipated stool in the rectal ampulla. As a patient ages and has continual presence of one or more of the factors mentioned, the integrity of the hemorrhoid “cushions” deteriorates, and the hemorrhoids begin to bulge and descend into the anal canal. When the cushion bulges into the canal, it is exposed to potential trauma and irritation from the passage of stool.

Differential Diagnosis

When a patient presents with rectal discomfort, swelling, pain, discharge, and bleeding at the time of defecation, it is prudent not to assume it is a

result of hemorrhoids; a full evaluation is indicated, including a rectal examination, a proctoscopic exam, and in some cases a sigmoidoscopy. There are several conditions producing symptoms similar to hemorrhoids that must be considered. To rule out grave causes of ano-rectal bleeding, such as anal or rectal carcinoma, one gastroenterologist suggests, “All patients over forty years old, even with typical hemorrhoidal bleeding, must undergo flexible sigmoidoscopy (or colonoscopy).”

Other types of ano-rectal pathology that must be ruled out include anal fissures, which can cause pain with defecation and be associated with rectal bleeding. The pain will be described as burning or tearing, as opposed to the achiness or feeling of fullness after defecation described by patients with hemorrhoids. Perirectal abscesses are less common in the general population but should be considered in patients with diabetes or other immunocompromising conditions. Anal fistulas can cause drainage, soiling of underwear, and discomfort. Mucosal diseases such as ulcerative proctitis, colitis, or Crohn’s disease can present with rectal bleeding and should be ruled out. Perianal condylomas cause pruritis, local irritation, pain and bleeding. Skin tags can be remnants of past external hemorrhoids and commonly co-exist with fissures. A rectocele can cause fullness in the rectum, giving the patient a similar sensation to an internal hemorrhoid.

It is common for patients to associate pruritis ani with hemorrhoids. In some cases swelling of external hemorrhoids and skin tags can prevent proper anal hygiene, which can cause marked itching. Hemorrhoids themselves do not produce significant itching. When a patient presents with pruritis ani, many assume it is the sequela of hemorrhoidal disease. However, a mindful physician will consider causes such as allergic reactions, perianal dermatitis, microorganisms, parasites, oral antibiotics, hygiene, systemic disease (e.g., diabetes mellitus, liver disease), heat, and hyperhidrosis.

Hemorrhoids : A Review of Treatment Options

Hemorrhoids and varicose veins are common conditions seen by general practitioners. Both conditions have several treatment modalities for the physician to choose from. Varicose veins are treated with mechanical compression stockings. There are several over-the-counter topical agents available for hemorrhoids. Conservative therapies for both conditions include diet, lifestyle changes, and hydrotherapy which require a high degree of patient compliance to be effective. When conservative hemorrhoid therapy is ineffective, many physicians may choose other non-surgical modalities: injection sclerotherapy, cryotherapy, manual dilation of the anus, infrared photocoagulation, bipolar diathermy, direct current electrocoagulation, or rubber band ligation. Injection sclerotherapy is the

non-surgical treatment for primary varicose veins. Non-surgical modalities require physicians to be specially trained, own specialized equipment, and assume associated risks. If a non-surgical approach fails, the patient is often referred to a surgeon. The costly and uncomfortable nature of treatment options often leads a patient to postpone evaluation until aggressive intervention is necessary. Oral dietary supplementation is an attractive addition to the traditional treatment of hemorrhoids and varicose veins. The loss of vascular integrity is associated with the pathogenesis of both hemorrhoids and varicose veins. Several botanical extracts have been shown to improve microcirculation, capillary flow, and vascular tone, and to strengthen the connective tissue of the perivascular amorphous substrate. Oral supplementation with *Aesculus hippocastanum*, *Ruscus aculeatus*, *Centella asiatica*, *Hamamelis virginiana*, and bioflavonoids may prevent time-consuming, painful, and expensive complications of varicose veins and hemorrhoids.

Conventional Approaches

Despite thousands of years and millions of patients with pain, discomfort, and perceived embarrassment of hemorrhoids, the exact nature and cause of the condition is not clear, and the standard treatments are, at best, imperfect. Dietary manipulation, vascular tonifying agents, injection sclerotherapy,

cryotherapy, manual dilation of the anus, infrared photocoagulation, bipolar diathermy, direct current electrocoagulation, rubber band ligation, and hemorrhoidectomy are all standard considerations for the treatment of hemorrhoids.

The treatments can be grouped into conservative (diet and vascular tonification); nonexcisional (sclerotherapy, cryotherapy, manual dilation, photocoagulation, diathermy, and electrocoagulation); and surgical methods (ligation and hemorrhoidectomy). “Conservative methods with or without nonexcisional treatments are preferred to surgical methods.”

Rubber Band Ligation:

A device is used to place one or two small rubber bands securely around the base of the hemorrhoid. The rubber bands are left in place to close off the blood supply to the hemorrhoid. The hemorrhoid and the rubber bands fall off after seven to ten days, leaving a small sore that will heal over time.

Direct Current Electrocoagulation:

A small probe is inserted into the hemorrhoid, and very low levels of electrical current are applied for six to ten minutes. The electrical current closes off the blood supply to the hemorrhoid.

One group of hemorrhoids is treated at a time, so patients must return for additional treatments.

Infrared Coagulation:

The device is used to deliver four to five 1.5-second applications of infrared light to close off the blood supply to the hemorrhoid. One area is treated per office visit. Additional visits may be necessary, usually one month apart.

Patients may experience a little bleeding

between the fourth and tenth days after the procedure.

Bipolar Electrocoagulation:

The probe is used to deliver electrical current for two seconds to the hemorrhoid. This will close off the blood supply to the hemorrhoid. This procedure is similar to infrared coagulation and direct current electrocoagulation.

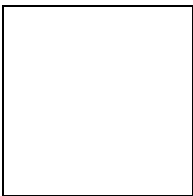
Some of the conventional approaches are not without potential complications. Injection sclerotherapy has resulted in cases of anaphylactic shock. Cryotherapy is cumbersome to perform and is associated with severe rectal pain and discharge. Manual dilation often requires general anesthetic and admission to the hospital. If dilation is not performed carefully the results may be disastrous. Septic complications, including death, have resulted from rubber band ligation. Hemorrhoidectomy, although indicated in extreme cases unresponsive to conservative treatment, is extremely painful and requires a four to six week recovery.

Nonexcisional Techniques in Hemorrhoid Treatment

The potential disadvantages of sclerotherapy, banding, manual dilation, and surgery have led to the development of a new generation of nonexcisional techniques for the treatment of hemorrhoidal disease. Infrared photocoagulation, bipolar diathermy, and electrocoagulation are the most recent additions to the plethora of modalities to consider. These modalities aim to affect sclerosis of the vascular root and to fix the mucosa to the underlying submucosa and muscle. There have been several studies showing the efficacy of these treatments as comparable to the semi-invasive therapeutic modalities. A study of 758 patients with symptomatic hemorrhoidal disease concluded that all three techniques, performed on an outpatient basis with little or no sedation, are effective modalities for first- and second-degree hemorrhoids. Moreover, direct current electrocoagulation was associated with less discomfort and fewer complications and can be effective in third- and fourth-degree hemorrhoids.

Although direct current electrocoagulation was utilized in 1867, and explained by Wilbur E. Keeseey, MD in 1934, doctors today oddly consider it one of the new generation of modalities. A study of 120 patients using direct current electrocoagulation treating a total of 590 hemorrhoid segments reported all patients were successfully treated and remained symptom free at

a mean duration of follow-up of 23 months. The researchers concluded that direct current electrotherapy is an effective, painless, and safe outpatient treatment approach to all grades of internal and mixed hemorrhoid disease. Direct current electrotherapy has also been shown to be effective, safe, and cost effective in the treatment of chronic anal fissures associated with internal hemorrhoids. One author suggests patients postpone evaluation of suspected hemorrhoids due to fear of the treatment modality, hospitalization, cost, and time of disability, leading to progression of the hemorrhoid or late diagnosis of serious gastrointestinal disease. Patients must be made aware of less invasive, relatively inexpensive, outpatient treatment options.



Dietary and Hydrotherapy Approaches to Hemorrhoids

Dietary Recommendations

Diet therapy is a widely accepted modality in the management of hemorrhoids and varicose veins. Many physicians consider the first line of therapy to be a high fiber diet with commercial fiber supplements and enough oral fluids to produce soft, but well formed and regular bowel movements. A low fiber diet can result in small hard stools that can cause

patients to strain during bowel movements. This strain increases intra-abdominal pressure, subsequently increasing pressure on the veins of the lower legs and the hemorrhoidal cushions. Over time this can deteriorate vascular integrity. A high fiber diet is an important component to the prevention and treatment of both hemorrhoids and varicose veins. This in addition to hydrotherapy, proper anal hygiene, and avoiding activities that require the patient to strain are the foundation of the approach of many family practitioners to these conditions.

Hydrotherapy

The warm sitz bath is the hydrotherapy indicated for conditions associated with increased pelvic congestion. The warm sitz bath is an effective non-invasive therapy for uncomplicated hemorrhoids and varicose veins, but requires a high degree of patient compliance.

Specific Nutrients and Botanicals for the Prevention and Treatment of Hemorrhoids

A major component of a safe and effective therapy for both varicose veins and hemorrhoids, that is often overlooked, is the use of botanical and nutritional therapies. Several botanical extracts have been shown to improve microcirculation, capillary flow, and vascular tone, and strengthen connective tissue of the perivascular amorphous substrate. The goals of

botanical and nutritional support are consistent with the philosophy of treating the cause of a disease. Conversely, the bulk of standard treatments for varicose veins and hemorrhoids are geared toward removing the problem or palliating the disease. Additionally, the low compliance associated with treatments such as hydrotherapy, mechanical compression therapy, and diet and lifestyle changes renders oral dietary supplementation an attractive option. The use of nutritional and botanical agents for the treatment of hemorrhoids and varicose veins is possibly the missing link to an effective conservative approach to these diseases. Early intervention with conservative therapies may prevent time-consuming and expensive complications of varicose veins and hemorrhoids.

Prevention

To help prevent hemorrhoids or hemorrhoidal flare-ups:

Advise should be given to –

-Eat high-fiber foods. Eat more fruits, vegetables and grains. Doing so softens the stool and increases its bulk, which will help lessen the straining that can cause hemorrhoids or worsen symptoms from existing hemorrhoids.

-Drink plenty of liquids. The exact amount of water and other fluids you should drink each day varies and depends on your age, sex, health, activity level and other factors.

-Consider fiber supplements. Over-the-counter products such as Metamucil and Citrucel can help keep stools soft and regular. Check with your doctor about using stool softeners. If you use fiber supplements, be sure to drink at least eight glasses of water or other fluids every day. Otherwise, fiber supplements can cause constipation or make constipation worse. Add fiber to your diet slowly to avoid problems with gas.

-Exercise. Stay active to reduce pressure on veins, which can occur with long periods of standing or sitting, and to help prevent constipation. Exercise can also help you lose excess weight that may be contributing to your hemorrhoids.

-Avoid long periods of standing or sitting. Sitting too long, particularly sitting on the toilet for long periods, can increase the pressure on the veins in the anus.

-Don't strain. Straining and holding your breath when trying to pass a stool creates greater pressure in the veins in the lower rectum.

-Go as soon as you feel the urge. If you wait to pass a bowel movement and the urge goes away, your stool could become dry and be harder to pass.

Self-care

You can temporarily relieve the mild pain, swelling and inflammation of

most hemorrhoidal flare-ups with the following self-care measures:

-Use topical treatments. Apply an over-the-counter hemorrhoid cream or suppository containing hydrocortisone, or use pads containing witch hazel or a topical numbing agent.

-Keep the anal area clean. Bathe (preferably) or shower daily to cleanse the skin around your anus gently with warm water. Soap isn't necessary and may aggravate the problem. Gently drying the area with a hair dryer after bathing can minimize moisture, which can cause irritation.

-Soak regularly in a warm bath. Do this several times daily.

-Apply cold. Apply ice packs or cold compresses on the anus to relieve swelling.

-Use a sitz bath with warm water. A sitz bath fits over the toilet.

-Don't use dry toilet paper. Instead, to help keep the anal area clean after a bowel movement, use moist towelettes or wet toilet paper that doesn't contain perfume or alcohol.

-Take oral medications. Acetaminophen (Tylenol, others), aspirin or ibuprofen (Advil, Motrin, others) temporarily to help relieve discomfort.

Homoeopathic Therapeutics