

= Hemorrhoid =

Hemorrhoids , also spelled 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 " hemorrhoid " is often used to mean the disease . The signs and symptoms of hemorrhoids depend on the type present . Internal hemorrhoids usually present with painless , bright red rectal bleeding when defecating . External hemorrhoids 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 .

While the exact cause of hemorrhoids remains unknown , a number of factors which increase pressure in the abdomen are believed to be involved . This may include constipation , diarrhea , and sitting on the toilet for a long time . Hemorrhoids 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 " hemorrhoids " 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 .

No specific treatment is often needed . Initial measures consists of increasing fiber intake , drinking fluids to maintain hydration , NSAIDs to help with pain , and rest . Medicated creams applied to the area are poorly supported by evidence . 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 .

Half to two thirds of people have problems with hemorrhoids at some point in their lives . Males and females are affected about equally commonly . Hemorrhoids affect people most often between 45 and 65 years of age . It is more common among the wealthy . Outcomes are usually good . The first known mention of the disease is from a 1700 BC Egyptian papyrus .

= = Signs and symptoms = =

In about 40 % of people with pathological hemorrhoids there are no significant symptoms . Internal and external hemorrhoids may present differently ; however , many people may have a combination of the two . Bleeding enough to cause anemia is rare , and life @-@ threatening bleeding is even more uncommon . Many people feel embarrassed when facing the problem and often seek medical care only when the case is advanced .

= = = External = = =

If not thrombosed , external hemorrhoids may cause few problems . However , when thrombosed , hemorrhoids may be very painful . Nevertheless , this pain typically resolves in two to three days . The swelling may , however , take a few weeks to disappear . A skin tag may remain after healing . If hemorrhoids are large and cause issues with hygiene , they may produce irritation of the surrounding skin , and thus itchiness around the anus .

= = = Internal = = =

Internal hemorrhoids usually present with painless , bright red rectal bleeding during or following a bowel movement . The blood typically covers the stool (a condition known as hematochezia) , is on the toilet paper , or drips into the toilet bowl . The stool itself is usually normally coloured . Other symptoms may include mucous discharge , a perianal mass if they prolapse through the anus , itchiness , and fecal incontinence . Internal hemorrhoids are usually only painful if they become thrombosed or necrotic .

= = Causes = =

The exact cause of symptomatic hemorrhoids is unknown . A number of factors are believed to play a role , including irregular bowel habits (constipation or diarrhea) , lack of exercise , nutritional factors (low @-@ fiber diets) , increased intra @-@ abdominal pressure (prolonged straining , ascites , an intra @-@ abdominal mass , or pregnancy) , genetics , an absence of valves within the hemorrhoidal veins , and aging . Other factors believed to increase risk include obesity , prolonged sitting , a chronic cough , and pelvic floor dysfunction . Evidence for these associations , however , is poor .

During pregnancy , pressure from the fetus on the abdomen and hormonal changes cause the hemorrhoidal vessels to enlarge . The birth of the baby also leads to increased intra @-@ abdominal pressures . Pregnant women rarely need surgical treatment , as symptoms usually resolve after delivery .

= = Pathophysiology = =

Hemorrhoid cushions are a part of normal human anatomy and become a pathological disease only when they experience abnormal changes . There are three main cushions present in the normal anal canal . These are located classically at left lateral , right anterior , and right posterior positions . They are composed of neither arteries nor veins , but blood vessels called sinusoids , connective tissue , and smooth muscle . Sinusoids do not have muscle tissue in their walls , as veins do . This set of blood vessels is known as the hemorrhoidal plexus .

Hemorrhoid cushions are important for continence . They contribute to 15 ? 20 % of anal closure pressure at rest and protect the internal and external anal sphincter muscles during the passage of stool . When a person bears down , the intra @-@ abdominal pressure grows , and hemorrhoid cushions increase in size helping to maintain anal closure . Hemorrhoid symptoms are believed to result when these vascular structures slide downwards or when venous pressure is excessively increased . Increased internal and external anal sphincter pressure may also be involved in hemorrhoid symptoms . Two types of hemorrhoids occur : internals from the superior hemorrhoidal plexus and externals from the inferior hemorrhoidal plexus . The dentate line divides the two regions .

= = Diagnosis = =

Hemorrhoids are typically diagnosed by physical examination . A visual examination of the anus and surrounding area may diagnose external or prolapsed hemorrhoids . A rectal exam may be performed to detect possible rectal tumors , polyps , an enlarged prostate , or abscesses . This examination may not be possible without appropriate sedation because of pain , although most internal hemorrhoids are not associated with pain . Visual confirmation of internal hemorrhoids may require anoscopy , insertion of a hollow tube device with a light attached at one end . The two types of hemorrhoids are external and internal . These are differentiated by their position with respect to the dentate line . Some persons may concurrently have symptomatic versions of both . If pain is present , the condition is more likely to be an anal fissure or an external hemorrhoid rather than an internal hemorrhoid .

= = = Internal = = =

Internal hemorrhoids originate above the dentate line . They are covered by columnar epithelium , which lacks pain receptors . They were classified in 1985 into four grades based on the degree of prolapse :

Grade I : No prolapse , just prominent blood vessels

Grade II : Prolapse upon bearing down , but spontaneous reduction

Grade III : Prolapse upon bearing down requiring manual reduction

Grade IV : Prolapse with inability to be manually reduced .

== External ==

External hemorrhoids occur below the dentate or pectinate line . They are covered proximally by anoderm and distally by skin , both of which are sensitive to pain and temperature .

== Differential ==

Many anorectal problems , including fissures , fistulae , abscesses , colorectal cancer , rectal varices , and itching have similar symptoms and may be incorrectly referred to as hemorrhoids . Rectal bleeding may also occur owing to colorectal cancer , colitis including inflammatory bowel disease , diverticular disease , and angiodysplasia . If anemia is present , other potential causes should be considered .

Other conditions that produce an anal mass include skin tags , anal warts , rectal prolapse , polyps , and enlarged anal papillae . Anorectal varices due to increased portal hypertension (blood pressure in the portal venous system) may present similar to hemorrhoids but are a different condition . Portal hypertension does not increase the risk of hemorrhoids .

== Prevention ==

A number of preventative measures are recommended , including avoiding straining while attempting to defecate , avoiding constipation and diarrhea either by eating a high @-@ fiber diet and drinking plenty of fluid or by taking fiber supplements , and getting sufficient exercise . Spending less time attempting to defecate , avoiding reading while on the toilet , and losing weight for overweight persons and avoiding heavy lifting are also recommended .

== Management ==

== Conservative ==

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 .

While many topical agents and suppositories are available for the treatment of hemorrhoids , little evidence supports their use . Steroid @-@ containing agents should not be used for more than 14 days , as they may cause thinning of the skin . Most agents include a combination of active ingredients . These may include a barrier cream such as petroleum jelly or zinc oxide , an analgesic agent such as lidocaine , and a vasoconstrictor such as epinephrine . Some contain Balsam of Peru to which certain people may be allergic .

Flavonoids are of questionable benefit , with potential side effects . Symptoms usually resolve following pregnancy ; thus active treatment is often delayed until after delivery .

== 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 is typically recommended as the first @-@ line treatment in those with grade 1 to 3 disease . It is a procedure in which elastic bands are applied onto an internal hemorrhoid at least 1 cm above the dentate line to cut off its blood supply . Within 5 ? 7 days , the withered hemorrhoid falls off . If the band is placed too close to the dentate line , intense pain results immediately afterwards . 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 hemorrhoid . This causes the vein walls to collapse and the hemorrhoids to shrivel up . The success rate four years after treatment is about 70 % .

A number of cauterization methods have been shown to be effective for hemorrhoids , but are usually only used when other methods fail . This procedure can be done using electrocautery , infrared radiation , laser surgery , or cryosurgery . Infrared cauterization may be an option for grade 1 or 2 disease . In those with grade 3 or 4 disease , recurrence rates are high .

= = = 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 hemorrhoidectomy (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 .

Excisional hemorrhoidectomy is a surgical excision of the hemorrhoid used primarily only in severe cases . It is associated with significant postoperative pain and usually requires 2 ? 4 weeks for recovery . However , the long @-@ term benefit is greater in those with grade 3 hemorrhoids as compared to rubber band ligation . It is the recommended treatment in those with a thrombosed external hemorrhoid if carried out within 24 ? 72 hours . Glyceryl trinitrate ointment after the procedure helps both with pain and healing .

Doppler @-@ guided , transanal hemorrhoidal dearterialization is a minimally invasive treatment using an ultrasound doppler to accurately locate the arterial blood inflow . These arteries are then " tied off " and the prolapsed tissue is sutured back to its normal position . It has a slightly higher recurrence rate , but fewer complications compared to a hemorrhoidectomy .

Stapled hemorrhoidectomy , also known as stapled hemorrhoidopexy , involves the removal of much of the abnormally enlarged hemorrhoidal tissue , followed by a repositioning of the remaining hemorrhoidal tissue back to its normal anatomical position . It is generally less painful and is associated with faster healing compared to complete removal of hemorrhoids . However , the chance of symptomatic hemorrhoids returning is greater than for conventional hemorrhoidectomy , so it is typically only recommended for grade 2 or 3 disease .

= = Epidemiology = =

It is difficult to determine how common hemorrhoids are as many people with the condition do not see a healthcare provider . However , symptomatic hemorrhoids are thought to affect at least 50 % of the US population at some time during their lives , and around 5 % of the population is affected at any given time . Both sexes experience about the same incidence of the condition , with rates peaking between 45 and 65 years . They are more common in Caucasians and those of higher socioeconomic status .

Long @-@ term outcomes are generally good , though some people may have recurrent symptomatic episodes . Only a small proportion of persons end up needing surgery .

= = History = =

The first known mention of this disease is from a 1700 BC Egyptian papyrus , which advises : ? ... Thou shouldest give a recipe , an ointment of great protection ; acacia leaves , ground , titrated and cooked together . Smear a strip of fine linen there @-@ with and place in the anus , that he recovers immediately . " In 460 BC , the Hippocratic corpus discusses a treatment similar to modern rubber band ligation : ? And hemorrhoids in like manner you may treat by transfixing them with a

needle and tying them with very thick and woolen thread , for application , and do not forment until they drop off , and always leave one behind ; and when the patient recovers , let him be put on a course of Hellebore . ? Hemorrhoids may have been described in the Bible , with earlier English translations using the now @-@ obsolete spelling " emerods " .

Celsus (25 BC ? AD 14) described ligation and excision procedures , and discussed the possible complications . Galen advocated severing the connection of the arteries to veins , claiming it reduced both pain and the spread of gangrene . The Susruta Samhita (fourth ? fifth century AD) is similar to the words of Hippocrates , but emphasizes wound cleanliness . In the 13th century , European surgeons such as Lanfranc of Milan , Guy de Chauliac , Henri de Mondeville , and John of Ardene made great progress and development of the surgical techniques .

In medieval times , hemorrhoids were also known as Saint Fiacre 's curse after a sixth @-@ century saint who developed them following tilling the soil . The first use of the word " hemorrhoid " in English occurs in 1398 , derived from the Old French " emorroides " , from Latin hæmorrhoida , in turn from the Greek ????????? (haimorrhōis) , " liable to discharge blood " , from ???? (haima) , " blood " and ???? (rhoos) , " stream , flow , current " , itself from ??? (rheo) , " to flow , to stream " .

= = Notable cases = =

Hall @-@ of @-@ Fame baseball player George Brett was removed from a game in the 1980 World Series due to hemorrhoid pain . After undergoing minor surgery , Brett returned to play in the next game , quipping " ... my problems are all behind me . " Brett underwent further hemorrhoid surgery the following spring . Conservative political commentator Glenn Beck underwent surgery for hemorrhoids , subsequently describing his unpleasant experience in a widely viewed 2008 YouTube video . Former U.S. President Jimmy Carter had surgery for hemorrhoids in 1984 . Cricketers Matthew Hayden and Viv Richards also had the condition .