Haemorrhoids (Piles)

What are haemorrhoids?

Haemorrhoids are abnormally enlarged vascular mucosal cushions in the anal canal. These mucosal cushions are normal findings - they help to maintain anal continence.[1] It is only when they become enlarged and start to cause symptoms that they become haemorrhoids.

Haemorrhoids originate either above the dentate (pectinate) line (internal haemorrhoids) or below the dentate line (external haemorrhoids). The dentate line is approximately 2 cm above the anal verge and is the anatomical delineation between the upper and lower anal canal.[1]

Internal haemorrhoids

Are classified according to the degree of prolapse, although this may not always reflect the severity of symptoms:[1] [2]

- First-degree haemorrhoids (grade I): do not prolapse.
- Second-degree haemorrhoids (grade II): prolapse on straining; reduce spontaneously.
- Third-degree haemorrhoids (grade III): prolapse on straining; can be reduced manually.
- Fourth-degree haemorrhoids (grade IV): permanently prolapsed; cannot be reduced.

They are painless unless they become strangulated. This is because the upper anal canal has no pain fibres.

External haemorrhoids

- Occur distal to the dentate line and lie circumferentially under the anoderm .

- Are covered by squamous epithelium and have sensory innervation so may become painful and itchy.
- May be visible on external examination.

Internal and external haemorrhoids can co-exist.

How common are haemorrhoids?

Community-based studies in the UK reported that haemorrhoids affect 13-36% of the general population.[1] An international web-based survey reported the general prevalence in adults to be 11%.[3] However, it is likely that these estimations may be higher than the actual prevalence because the studies mainly relied on self-reporting, and many anorectal symptoms are often wrongly attributed to haemorrhoids.

Risk factors

Proposed risk factors include:[2] [4]

- Constipation.
- Prolonged straining and time spent on the toilet.
- Chronic diarrhoea.
- Increased abdominal pressure as in ascites or during pregnancy and childbirth.
- Obesity.
- Heavy lifting.
- Chronic cough.
- Injury to the spinal cord or rectum.
- Inflammatory bowel disease.
- Ageing and hereditary factors.

Haemorrhoids: symptoms and signs

Symptoms

- A person may be asymptomatic.

- Bright-red, painless rectal bleeding with defecation is the most common symptom.[2] . It may be streaks on the toilet paper or blood dripping into the toilet. Blood may coat stools but is not mixed in.
- Anal itching and irritation may result from chronic mucous discharge irritating the perianal skin.[1]
- A feeling of rectal fullness, discomfort or of incomplete evacuation on bowel movements may be present if prolapse occurs with straining.
- Prolapsed haemorrhoids may present with a history of a lump at the anal verge.
- Soiling due to mucous discharge or impaired continence may also be experienced.
- Pain is rarely felt with internal haemorrhoids unless the haemorrhoid prolapses and becomes strangulated.
- Strangulated haemorrhoids may thrombose which is intensely painful.
- External haemorrhoids do not usually cause symptoms unless thrombosis occurs causing acute severe pain and a visible/palpable perianal lump.

Signs on examination

External examination

- Non-prolapsed internal haemorrhoids are not evident on external examination and are difficult to feel on digital rectal examination.
- Local perineal irritation may be seen if chronic mucous discharge is present.
- Asking the patient to strain may allow haemorrhoids to become visible at the anal verge. They appear as bluish, bulging vessels covered by mucosa.
- Thrombosed haemorrhoids are seen as purple, swollen, acutely tender perianal lumps.

Digital rectal examination

It is essential to carry out digital rectal examination even though internal haemorrhoids will not be palpable. Other pathology needs to be excluded.

Differential diagnosis

- Anal carcinoma.
- Colorectal cancer.
- Inflammatory bowel disease: Crohn's disease, ulcerative colitis.
- Rectal prolapse.
- Adenomatous polyps.
- Anal fissure.
- Condylomata acuminata (genital warts).
- Anorectal abscess.
- Anal fistula.
- Other causes of pruritus ani - eg, threadworms, contact dermatitis.

Investigations[2]

- Proctoscopy should be carried out. If facilities are not available in primary care, referral to secondary care may be needed. Haemorrhoids are seen as pink mucosal swellings.
- Even if haemorrhoids are seen on proctoscopy, this does not necessarily exclude other pathology. Refer if there is any doubt about the diagnosis or if symptoms are recurrent.[1]
- National Institute for Health and Care Excellence (NICE) guidelines for suspected cancer should be followed, including the use of faecal immunochemical tests (FIT) and suspected cancer pathway referrals where appropriate.[5] [6]
- Anal cancer may look similar to a prolapsed haemorrhoid.
- Flexible sigmoidoscopy and possible colonoscopy may be carried out to exclude other pathology.
- Anorectal physiological studies and anorectal ultrasound may be useful if there is associated soiling or incontinence.
- FBC may reveal anaemia or infection.

Haemorrhoids treatment and management

Treatment depends on the degree of prolapse and the severity of symptoms. Refer using the suspected cancer pathway referral (for an appointment within two weeks) if anal or colorectal cancer is suspected.[5] Refer to an appropriate specialist if any other serious pathology, such as inflammatory bowel disease or a sexually transmitted infection, is suspected.

Prevention and management of constipation[1]

- Increase fluid and fibre intake. Aim for an intake of 30 g of insoluble fibre (raw fruits, vegetables, fibre supplements) and 6-8 glasses of fluid daily. Avoid too much caffeine or alcohol.
- Bulk-forming laxatives such as ispaghula husk or sterculia are preferred if constipation needs treatment. Alternatives are lactulose or sodium docusate.

Pain and symptom relief[1]

- Simple analgesia - for example, paracetamol. Avoid constipating codeine analgesia.
- Topical therapies:
    - Anaesthetic preparations may alleviate pain, burning and itching. They should be used for only a few days, as they may cause sensitisation of the anal skin.
    - Topical corticosteroids may reduce inflammation and pain. Local infection must be excluded before use and they should only be used for up to seven days, as prolonged use may lead to skin atrophy, contact dermatitis and skin sensitisation.
- Good perianal hygiene may be helpful in providing symptomatic relief and preventing perineal dermatitis.
- Straining at stool should be avoided as it can make symptoms worse.

Non-surgical haemorrhoid treatments

Rubber band ligation[7]

- A band is applied to the base of the haemorrhoid, which becomes necrotic after a few days and drops off.
- Up to three haemorrhoids can be banded at one time.
- A good treatment for grade II haemorrhoids with similar results to haemorrhoidectomy but without the same pain and other side-effects.
- There is a higher risk of haemorrhoid recurrence than with haemorrhoidectomy.
- Pain and haemorrhage are possible complications.[2] Haemorrhage can happen late (up to 5-10 days post-procedure).

Infrared coagulation/photocoagulation
Infrared energy causes tissue fibrosis which leads to mucosal fixation and a reduced chance of the haemorrhoid prolapsing.

Injection sclerotherapy[2]

- 5% oily phenol is injected around the base of the haemorrhoids, leading to haemorrhoid atrophy because of fibrosis of blood vessels.
- Less effective than rubber band ligation.
- Not used in large prolapsing haemorrhoids.

Bipolar diathermy; direct current electrotherapy

- Local application of heat causes tissue fibrosis.
- NICE recommends that electrotherapy can be considered as a treatment option for the treatment of grade I to III haemorrhoids.[8]

Surgical treatments
These are reserved for large or symptomatic haemorrhoids that do not respond to other treatments.[2]

Haemorrhoidectomy

- This is a painful procedure, performed under general anaesthesia.
- Several operative techniques have been described - eg, the Milligan-Morgan open haemorrhoidectomy.

- Excisional haemorrhoidectomy is more effective long-term than the less invasive technique of rubber band ligation, at least for grade III haemorrhoids, but at the expense of increased pain, higher complications and more time off work.[7]
- Complications can include infection, secondary haemorrhage, urinary retention, abscess formation, faecal incontinence, fistula and anal stenosis.[2]

Circular stapled haemorrhoidectomy (haemorrhoidopexy)[9]

- This is a possible treatment for prolapsed, symptomatic internal haemorrhoids.
- A specialised circular stapling gun allows excision of a doughnut of mucosa from the upper anal canal. This interrupts the blood supply to the haemorrhoids and has the effect of 'pulling up' the prolapsed mucosa. The haemorrhoids themselves are not excised.
- Seems to be less painful and allow a quicker return to usual activities and work than conventional haemorrhoidectomy.[10]
- There is a higher rate of prolapse and re-intervention for prolapse compared with conventional haemorrhoidectomy.[11]

Haemorrhoidal artery ligation[12]

- This involves cutting off the blood supply to the haemorrhoids, thereby shrinking them.
- The procedure is usually performed under general anaesthesia and a proctoscope and Doppler are used to visualise the haemorrhoidal arteries which are then sutured.

Thrombosed haemorrhoids[2]

- These are extremely painful.
- Consider admission for those presenting within 72 hours, as some advocate excision under local anaesthetic.[1] [13] Incision and drainage of the clot relieve pain but the thrombosis often recurs and there may be persistent bleeding.
- Conservative treatment includes analgesia, ice packs and stool softeners. A topical calcium antagonist may help to relieve pain.

- If managed conservatively, symptoms usually settle within 10-14 days.

Complications[1]

- Skin tags can develop because of repeated haemorrhoid dilatation which causes the overlying skin to enlarge and stretch.
- Ischaemia, thrombosis and even gangrene may develop when internal haemorrhoids become strangulated.
- Perianal sepsis may occur but is rare.
- Severe or persistent bleeding may lead to anaemia.
- Thrombosed external haemorrhoids may ulcerate.

Prognosis[1]

- This is generally good.
- Conservative measures are adequate for many people.
- The likelihood of ongoing or recurrent symptoms is greater in people with continued predisposing factors.
- About 10% of people will eventually need surgery.
- Haemorrhoids in pregnancy usually resolve after delivery.

Prevention

- Avoidance of constipation with a high-fibre, high-fluid diet.
- Avoidance of prolonged straining.

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