



Haemorrhoids – a review

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BACKGROUND Haemorrhoids have plagued humankind since the dawn of history. Hippocrates describes the treatment of anorectal disorders with special exactness. He describes specula to examine patients and he treated patients with suppositories, cautery and even by excision. It seems the fundamentals of haemorrhoid treatment have not changed for thousands of years.

OBJECTIVE This article presents a review of haemorrhoids with particular reference to the general practice setting.

DISCUSSION It has been estimated that 50% of the population has haemorrhoids by the age of 50 years. Although patients often consider the condition to be a single simple disease, this is not so. This article demonstrates that a large variety of closely related conditions are classified as haemorrhoids and it emphasises the dangers of misdiagnosis as haemorrhoids can mimic more important and serious diseases.



Haemorrhoids have been divided into two types: internal and external. However, they are often mixed. Theoretically, internal haemorrhoids are covered by mucosa, are not sensitive and they drain to the liver via the portal circulation, whereas external haemorrhoids are acutely sensitive, covered by anoderm (modified skin) and drain via the systemic venous system to the inferior vena cava.

Internal haemorrhoids

Aetiology

There are many plausible theories of haemorrhoid formation. It is generally agreed that haemorrhoids are caused by a disturbance of bowel evacuation.¹ This can take the form of diarrhoea or constipation and is closely related to dietary intake. The most common feature is constipation due to lack of fibre and water in the diet.²

Anatomy

Immediately above the dentate line the mucosa of the anal canal covers three cushions of stroma. These cushions contain arteriovenous fistulae and are

thought to improve continence. On the right side there are two cushions and on the left there is only one. They mark the standard position of haemorrhoids: left lateral, right anterior and right posterior. The downward slide of these cushions is responsible for the formation of internal haemorrhoids.¹

Clinical stages

Figure 1 reflects the level of descent of mucosa with its stroma. The clinical stages of haemorrhoids are:

- first degree haemorrhoids that cause bright red bleeding separate from the motions
- second degree haemorrhoids also bleed. The patient becomes aware of a lump, which disappears spontaneously after defaecation
- third degree haemorrhoids differ from the above in that manual replacement of the lump becomes necessary
- fourth degree haemorrhoids cannot be manually replaced. The anatomy of the dentate line is disrupted. They are sometimes depicted as intero-external

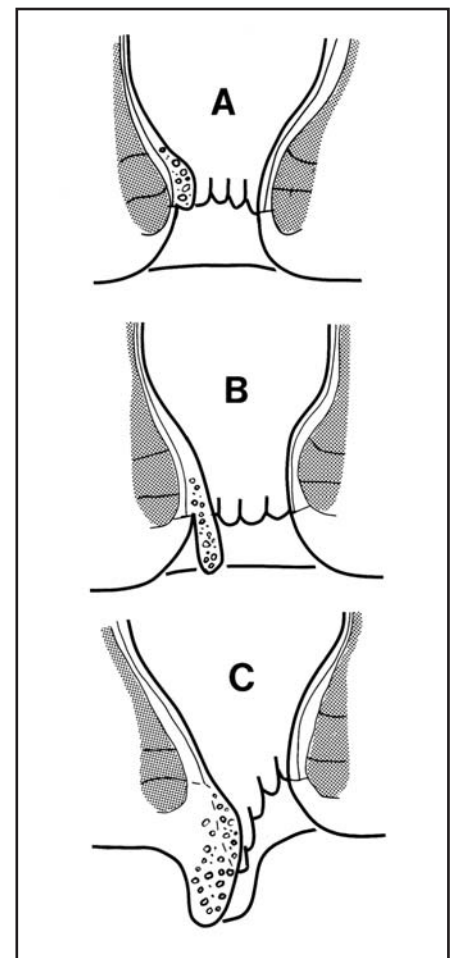


Figure 1a. Internal first degree haemorrhoids
b. Second and third degree haemorrhoids
c. Fourth degree haemorrhoids



Figure 2. Thrush associated with internal haemorrhoids



Figure 3. Fissure-in-ano



Figure 4. Strangulated haemorrhoids



Figure 5. Anal tags

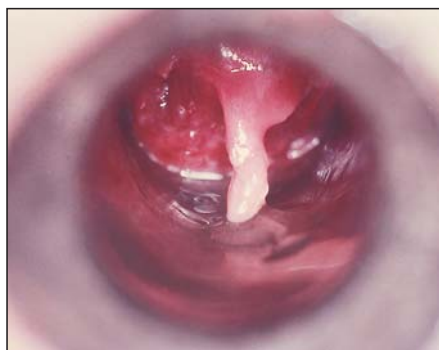


Figure 6. Prolapsing anal fibro-epithelial polyp



Figure 7. Perianal haematoma

haemorrhoids. Bleeding is not common with haemorrhoids covered by skin anoderm and mucosa that cannot be reduced.

History and symptoms

As with all patients a general history is important. It should specifically include questions about loss of weight and a past history of other diseases, as these may impact on subsequent treatment. A family history of any bowel cancers or polyps should be obtained.

Bleeding

Bright red bleeding separate from faeces often indicates first degree haemorrhoids but rectal bleeding must arouse suspicion of more serious pathology. Occasionally haemorrhoids cause anaemia but more serious pathology such as carcinoma of the caecum must be considered.

Prolapse

Patients are often confused about lumps in the anal area. It is essential to examine

the patient to confirm the problem.

Discharge and irritation

This is common with all types of internal haemorrhoids. Even with first degree haemorrhoids there is leakage of fluid resulting in a warm, moist perianum; an ideal medium for thrush (Figure 2).

A feeling of incomplete bowel evacuation

This can be the result of the physical size of the haemorrhoid or due to associated constipation.

Anal pain

Pain is not a feature of uncomplicated internal haemorrhoids. It can be due to other problems such as fissure-in-ano (Figure 3) or to complications such as thrombosis or strangulation (Figure 4).

Constipation or diarrhoea

These symptoms may be the cause of haemorrhoids but do not occur as a result of them.

External haemorrhoids

Many conditions have become known as external haemorrhoids. Any lump in the anal region covered by squamous epithelium rather than mucosa is classified as such. Tags, (Figure 5) anal fibro-epithelial polyps (Figure 6) and perianal haematomas (Figure 7) have all become included in this classification.

Skin tags

These are very common. Fundamentally they are exaggerated wrinkles resulting from the action of the sphincter muscle on previously stretched skin or skin affected by a previous operation. Resolved perianal haematomas are a common cause.

Anal polyps

A greatly enlarged anal papilla (normally part of the dentate line) forms a common type of external haemorrhoid (Figure 6). They are not adenomas and have no malignant potential.



Figure 8. Prolapsed internal haemorrhoids



Figure 9. Proctoscopic view of large internal haemorrhoid

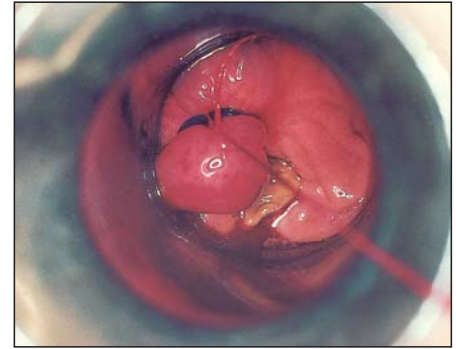


Figure 10. Haemorrhoid after application of rubber band

Perianal haematoma

Perianal haematoma results from straining. A lump consisting of a blood clot deep to the sensitive anoderm suddenly appears and becomes acutely painful. General practitioners are often reluctantly forced into treating this problem. If the lump is soft and not too tender no immediate treatment is necessary. If the pain is severe an incision to drain the blood clot becomes necessary. At times the mass is very large and an excision may be needed.

Examination of haemorrhoids (internal and external)

A general examination of the patient is important as this affects the subsequent treatment and because it may prevent major mistakes.

Examination of the perianal region

The patient lies in the left lateral position with the right buttock raised for the area to be inspected. Polyp tags and haematomas can be seen immediately. Associated rashes and scratch marks are noted. Prolapsed internal haemorrhoids are distinguished by the covering of mucosa (Figure 8) and by the lack of sensation. Strangulated haemorrhoids are grossly oedematous (Figure 4).

Digital examination of the rectum

This examination is performed in order to exclude tumours both within and outside the rectum. Internal haemorrhoids cannot

be felt unless thrombosed. It will also make one aware whether proctoscopy is going to be possible and not too painful.

Proctoscopic examination

This is an essential part of both haemorrhoid examination and treatment. It should only be attempted if it does not cause undue pain. If there is pain it will be due to a condition that must be treated under local or general anaesthesia. Internal haemorrhoids appear as purplish bulges that project into the anal canal. Large haemorrhoids can usually be made to prolapse as the proctoscope is withdrawn (Figure 9).

Rigid sigmoidoscopy and barium enema

Since the advent of colonoscopy, rigid sigmoidoscopy and barium enema have assumed a minor place in the differential diagnosis of haemorrhoids. Rigid sigmoidoscopy is useful in the younger age group (under 35 years) who have bleeding haemorrhoids and no other symptoms or risk factors. Immediate treatment can be instituted after examination has shown the patient does not have proctitis, a neoplasm, or bleeding from a higher level. Barium enema is usually reserved for patients in whom colonoscopy has been unsuccessful.

Colonoscopy

Colonoscopy is performed in order to exclude all the serious conditions that mimic haemorrhoids. Failing to diagnose

one of these conditions, especially cancers and colonic polyps, may be a disaster for the patient and result in litigation. The colonoscope has therefore become an essential tool in the management of haemorrhoids. If a patient refuses to have a colonoscopy he or she should be warned of the possible consequences and this warning should be documented.

Treatment of haemorrhoids

Topical treatment

This usually implies self treatment rather than medically supervised management. There are two types of medication: suppositories and creams or ointments. In 1995 in the United States, approximately \$330 million was spent on these preparations.³ Invariably a mixture of pharmaceuticals is concocted. There are combinations of topical anaesthetics and analgesics mixed with astringents, anti-inflammatory agents and vasoconstrictors; corticosteroids are often added.³ There is no documented evidence that any permanent benefit is obtained from these substances, although a temporary alleviation of symptoms is sometimes achieved.

Haemorrhoidectomy

Fortunately this procedure has become relatively rare having been displaced by less painful procedures which cause virtually no loss of work time for the patient. Recently it has been shown that a haemorrhoidectomy can be safely performed in day centers and this has caused a slight swing back toward the procedure. Large

haemorrhoids especially those which have a considerable element of squamous epithelium should be treated in this way.

Rubber band ligation of haemorrhoids

Most internal haemorrhoids can be treated by this method. The technique can be quickly learned and is suitable for GPs to perform. With a proctoscope in place the haemorrhoid can be grasped with forceps, then passed through a banding tool with which it is possible to apply a rubber band. Figure 10 shows the end result of an applied band. The exact technique is demonstrated at the website: <http://www.wales.com.au>.

Injection of haemorrhoids (sclerotherapy)

This technique using 5% phenol in oil has been in use since 1928. The method causes an inflammatory reaction in the submucosa of the haemorrhoid resulting in an obliteration of blood vessels. The vascularity of the haemorrhoid is reduced and the bleeding often ceases. Injection can be combined with rubber banding. The injection technique is suitable for general practice and can also be studied at: <http://www.wales.com.au>. Grade 1 haemorrhoids can be treated in this manner.

Laser haemorrhoidectomy

There appears to be a demand for this method of haemorrhoidectomy, although I have no experience of the technique. To date, there does not appear to be any advantage over conventional haemorrhoidectomy.

Stapled haemorrhoidectomy

This new technique holds promise for the future. Large haemorrhoids can be treated by stapling the complete circumference of mucosa immediately above the haemorrhoid. Although this is usually pain free, it may cause severe pain which can last for some weeks. The technique is anatomically similar to rubber band ligation but cannot be reversed. A badly placed

rubber band can easily be removed with instant relief of pain. This is not possible once the stapler has been applied.

Conflict of interest: none declared.

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