Haemorrhoid Treatment including Rubber Band Ligation

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Abstract

A practical guide for surgical students and trainees. An information guide for the haemorrhoid patient.

Key words: haemorrhoids, HAL RAR repair, injection sclerotherapy, rubber band ligation

Haemorrhoids - Introduction and Background

Have a rich blood supply from the superior and middle rectal vessels. They have been compared with protruding varicose veins. They bleed or prolapse with the straining associated with constipation. The lack of fibre in the modern diet is thought to play a role.

Haemorrhoids may: bleed, prolapse or thrombose. Staging reflects the severity and is used as a guide to advise on treatment.

The bleeding is typically bright red and spurts into the toilet pan. It discolours the toilet paper red. Should the blood be mixed with the faeces this suggests bleeding from a higher source. This requires further investigation.

Stage 1 - Bleed, particularly at the toilet - the red blood may drip or splash into the bowl or colour the toilet paper.

Stage 2 - Prolapse - usually with straining at the toilet. They return inside spontaneously

Stage 3 - Need to be pushed back in after bowel action

Stage 4 -Thrombose and prolapse - this is very painful and the haemorrhoid cannot be returned inside

Perianal haematoma

This is a different problem. It is a rupture of the perianal venous plexus. It is situated separate to the anal verge. There may be some overlap with internal or interno –external haemorrhoids. They are painful but the pain usually settles within 5 days – thus they are called a 5 day wonder. They may be treated by drainage in the office.

Treatment for haemorrhoids depends on their severity (stage or degree).The main measures consist of:

STAGE1 High fibre diet and use of local shrinking and soothing applications such as local anaesthetic or Cortisone creams or suppositories.

STAGE 2 Diet and applications help but banding or injection is often recommended. We prefer banding over injection.

STAGE 3. Injection sclerotherapy, Rubber banding or Haemorrhoidectomy.

STAGE 4. Haemorrhoidectomy.

Newer Treatment - HAL RAR

HAL RAR (Haemorrhoid artery ligation and recto anal repair)

The rectal vessels are transfixed under the guidance of an ultrasound probe. The larger skin tags are hooked up. No incisions are required. General anaesthesia is required.
In assessing the type of treatment the presence of large skin tags may be a factor in decision making.

Radical operative haemorrhoidectomy. This is the most effective method of treating large or thrombosed haemorrhoids permanently. However, surgery does involve hospitalization and up to two to three weeks of postoperative discomfort and time off work. Cost factors and pressure on beds has led to early discharge with some even being treated as a day case.

Advancing technology has led to a stapled haemorrhoidectomy which is not always popular and still has similar complications to the standard haemorrhoidectomy.

Following haemorrhoidectomy possible early complications include bleeding or acute retention of urine, then later secondary haemorrhage.

Before any anal procedure a full history and examination is required to exclude other causes of the bleeding such as rectal or bowel cancer.

This includes a full assessment, abdominal examination, rectal examination, proctoscopy and at least sigmoidoscopy. Young age is not a reason to exclude these as rectal cancer not infrequently occurs aggressively even in the twenties. Other risk factors such as family history and inflammatory bowel disease must also be noted in making management decisions.

In western society rubber band ligation would be carried out by a surgeon.

Rubber band ligation

Rubber band ligation strangulates the blood supply and the haemorrhoids shrink or drop off within a few days. Because internal haemorrhoids have an autonomic nerve supply they do not have the sensitive pain nerve fibres of the skin. Thus the technique is usually not painful. It is however useful to give some light analgesia such as paracetamol as this reduces the suprapubic referred discomfort which can occur. It also reduces the need to defaecate immediately post op which would dislodge the bands. However, the external skin is painful and for this reason banding is not suitable for those haemorrhoids which are thrombosed. Banding does not deal with the large skin tags.

Banding is usually carried out in the office. It does not require an anaesthetic. Some patients go into anal spasm and the proctoscope cannot be inserted thus anaesthesia is required. Banding can also be performed together with colonoscopy under general anaesthetic particularly if there is an indication for colonoscopy.

A latex rubber band is placed around the neck of the haemorrhoid, through a proctoscope. There are 2 techniques. With one an assistant holds the proctoscope while the surgeon needs both hands to grasp the haemorrhoid and fire the band applicator. The second technique uses suction on the gun, thus only one hand is required and the surgeon can hold the proctoscope with the other hand.

Procedure

At the first visit a rectal examination with a well lubricated glove is performed. Then the bowel above the haemorrhoids is examined with a sigmoidoscope to exclude other causes of bleeding from the bowel. A colonoscopy may need to be arranged to ensure no other cause for the bleeding is present.

A suitable time to carry out the rubber band ligation is then arranged. It is preferable for the patient to be driven, as occasionally patients can feel faint after the procedure. There may be some lower abdominal discomfort.

Advantages
1. No hospitalisation.
2. No anaesthetic required. Minimal pain.
4. Minimal time off work.

Possible Disadvantages
May require more than one course of treatment.

Does not deal with external skin tags and loose skin of haemorrhoids.

There is a small risk of complications such as aggravation of other haemorrhoids, bleeding, pain or infection. There is still the remote possibility of secondary haemorrhage.

The pain is difficult to predict and is usually not severe. However if the bands are too low the somatic nerves are involved and it is extremely painful. The bands may need to be removed.

There is a bearing down sensation sometimes and analgesics taken just before or after the procedure is helpful.

Recurrence is more common than following surgery

After the Procedure
The patient should be asked to rest in the office to ensure all is okay for 15 minutes or so. It is best to be driven home.

The following is suitable patient information to be given to the patient:

1. Try not to use your bowels the same day; the rubber band may fall off with the straining. Occasionally you will see the band very soon after the procedure suggesting the treatment was ineffective. On most occasions you will not even notice the rubber band.

2. Avoid getting constipated or straining. Two to three teaspoons of bran a day or other stool softeners Coloxyl or Agarol may help.

3. If there is excessive bleeding, lie down with your bottom up in the air. Gravity usually stops the bleeding. However, if it persists notify the office. Anusol or Rectinol ointments may help minor bleeding.

4. A burning or irritating sensation may be present. Stop all coffee, alcohol and spices and the use of Anusol or Rectinol suppositories.

For pain use Panadol, Panadeine, Digesic, Codral Forte or anti- inflammatories such as Neurofen or Neurofen Plus.
If another haemorrhoid becomes inflamed, try to push it back inside and use a suppository.

For painful external swelling:

- Warm baths are helpful.
- Ice packs help the haemorrhoids shrink.
- Rest,

The situation may be reassessed in about three weeks to determine how successful the procedure has been. An examination is not usually carried out until then, because there is a wound inside where the haemorrhoid has dropped off. This wound can bleed severely about 8-10 days after the procedure - rarely.

For this reason it is advisable not to have the banding done if you are going away on holidays or travelling during that time.

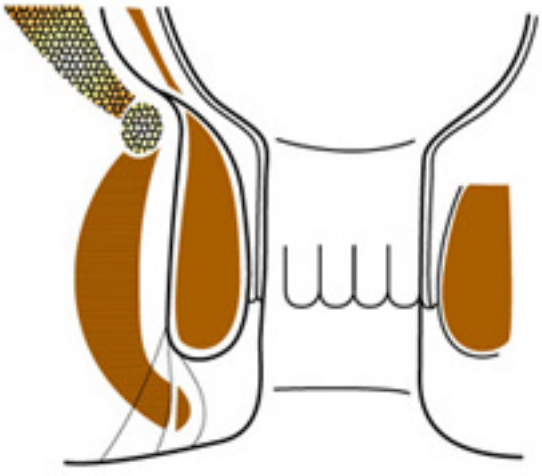
If you have other specific medical problems such as being on Warfarin or Aspirin these will need to be considered and probably stopped. Also if you have a heart valve problem or cardiac murmur an antibiotic cover may be required.

Injection sclerotherapy

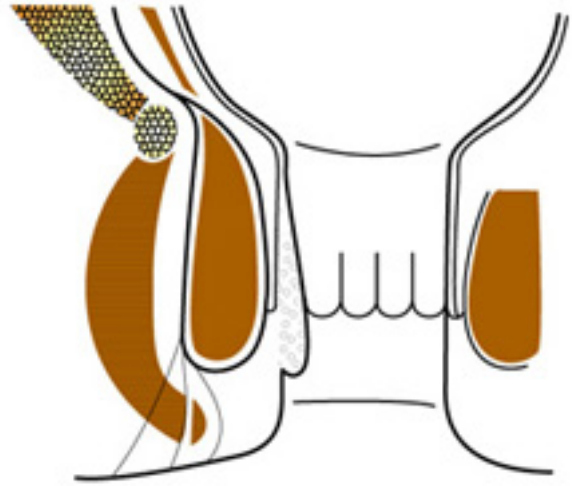
A solution of 4% phenol in almond oil is used. Some prefer this to banding. The phenol thromboses the vessels. It can only be injected above the dentate line. Below would cause severe pain. There are similar results and complications to banding, but another severe complication can be prostatitis if it is injected into the prostate.

Diagram of the ano-rectal region

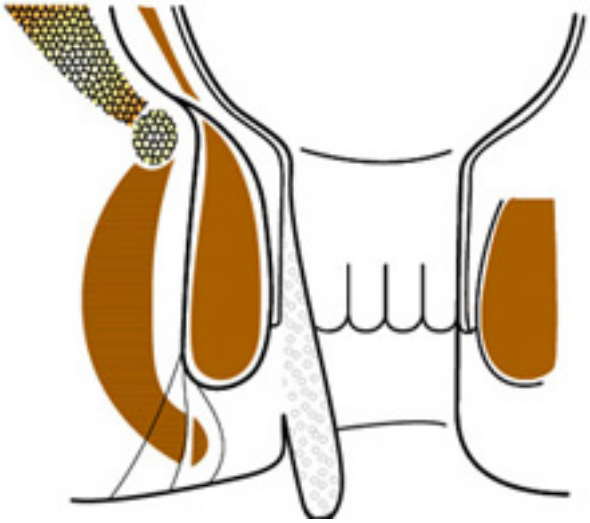
Normal anatomy. Note dentate line (pectinate line), internal and external anal sphincters



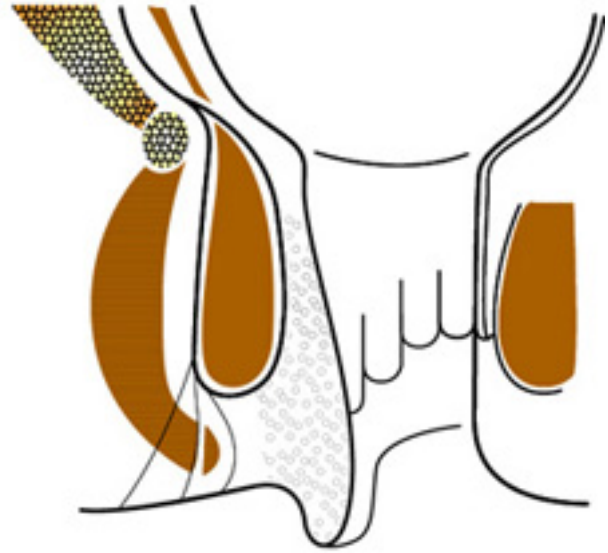
Does not prolapse - 1st degree



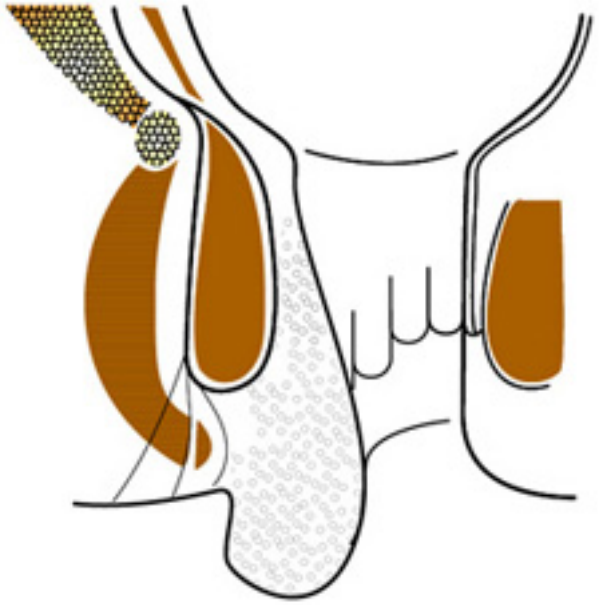
Reduces spontaneously - 2nd degree



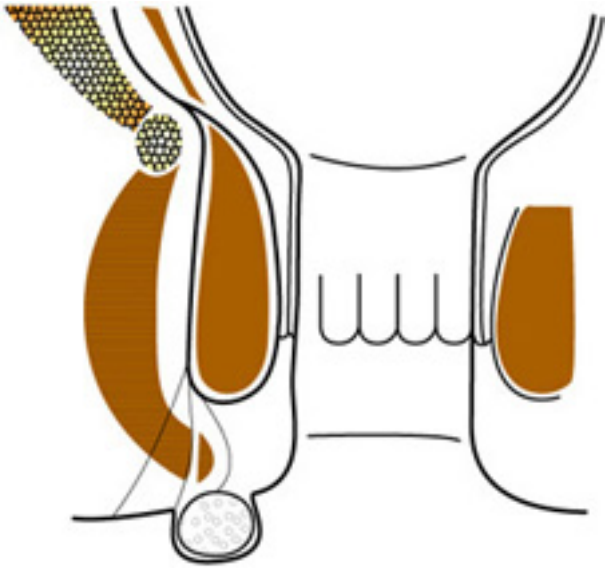
Needs to be pushed back in - 2nd to 3rd degree



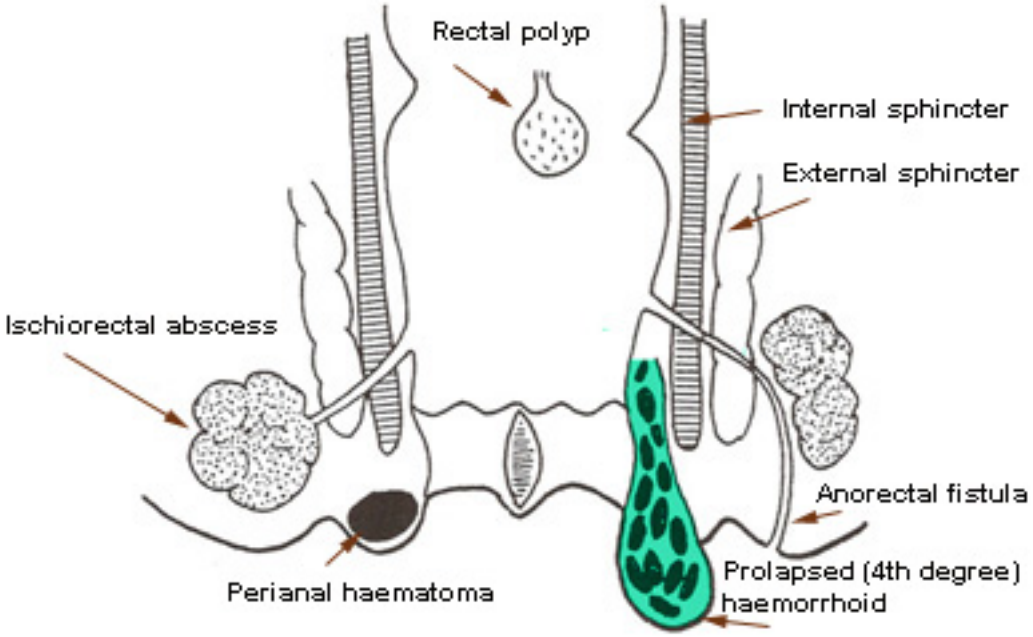
Strangulated thrombosed - larger - 3rd to 4th degree



Perianal Haematoma - external haemorrhoid



Perianal haematoma and other conditions and landmarks



Rubber Band Ligation for Haemorrhoids

This is a simpler office or room's treatment for haemorrhoids as opposed to surgery, which usually takes place in hospital. No anaesthetic is required and the patient is able to go home almost immediately.

When surgery (hospitalisation and anaesthesia are required) the post-operative course is often more painful.

Banding has many advantages over the haemorrhoid operation. However not all haemorrhoids are suitable for rubber band ligation. Haemorrhoids are formed just within the anus.

Physical Examination

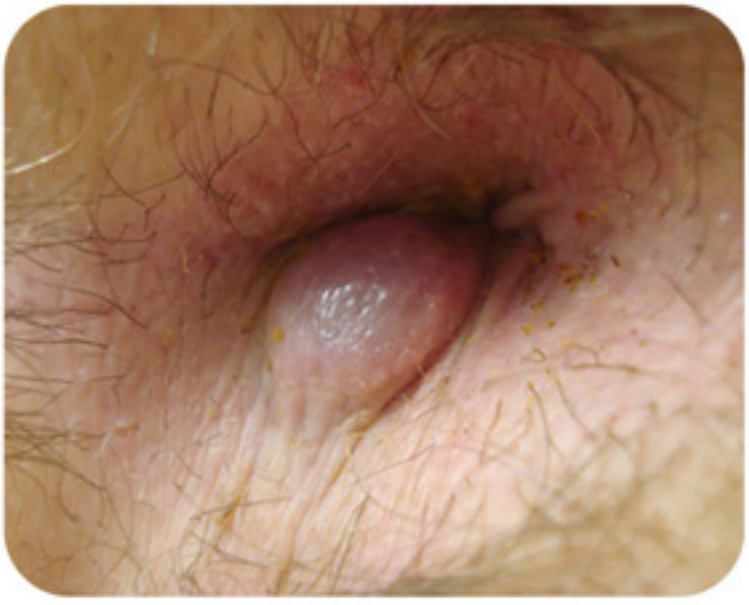


Figure 1. Thrombosed single haemorrhoid. Note: has an internal component thus not strictly a perianal haematoma

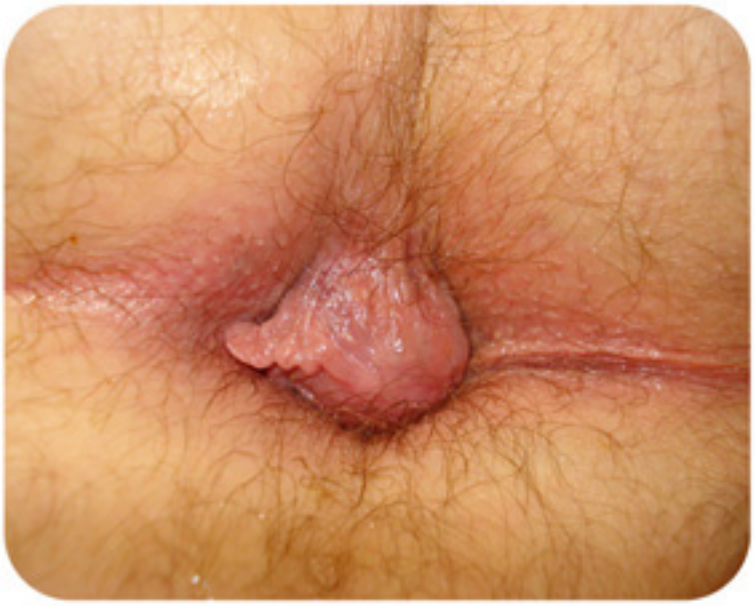


Figure 2. Another example of thrombosed haemorrhoid. Note: extra skin tags

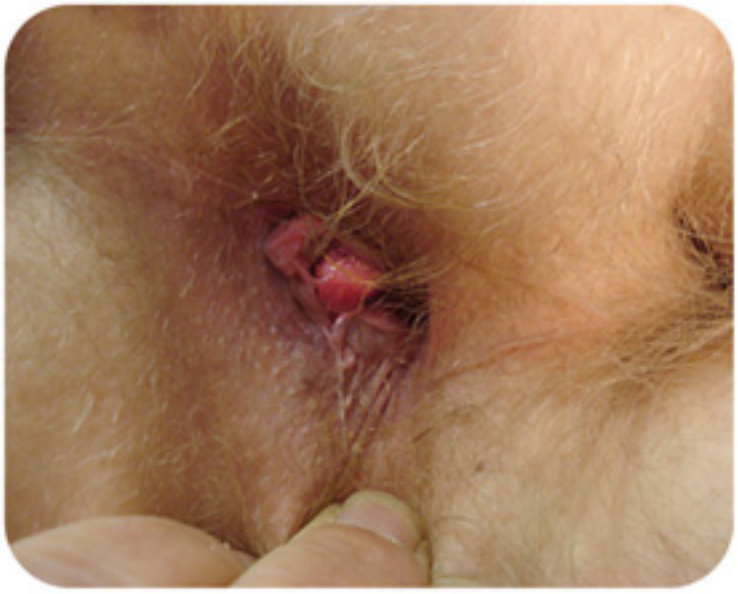
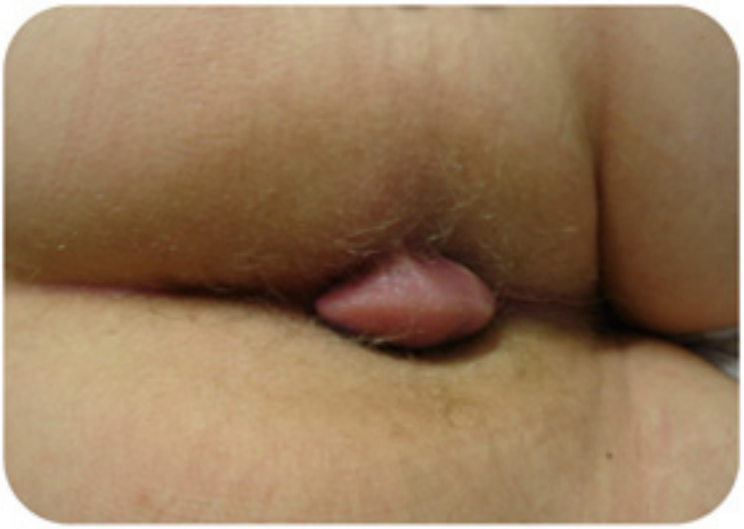
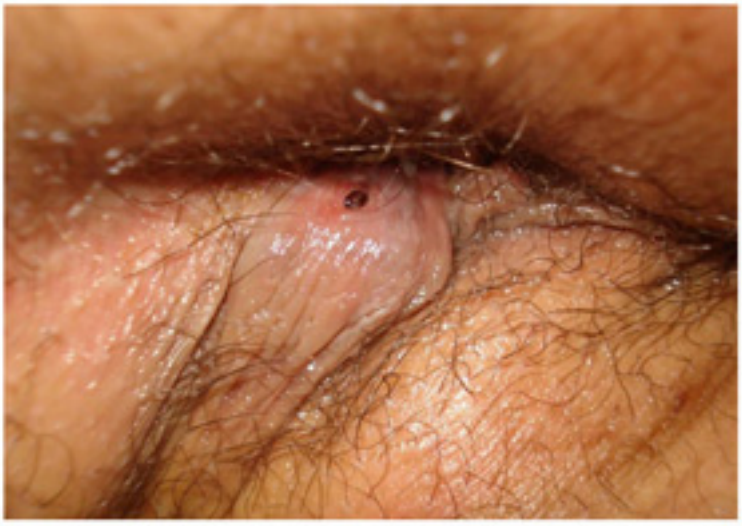


Figure 3. Prolapsing haemorrhoid. Note: Different stages of thrombosis and prolapse.



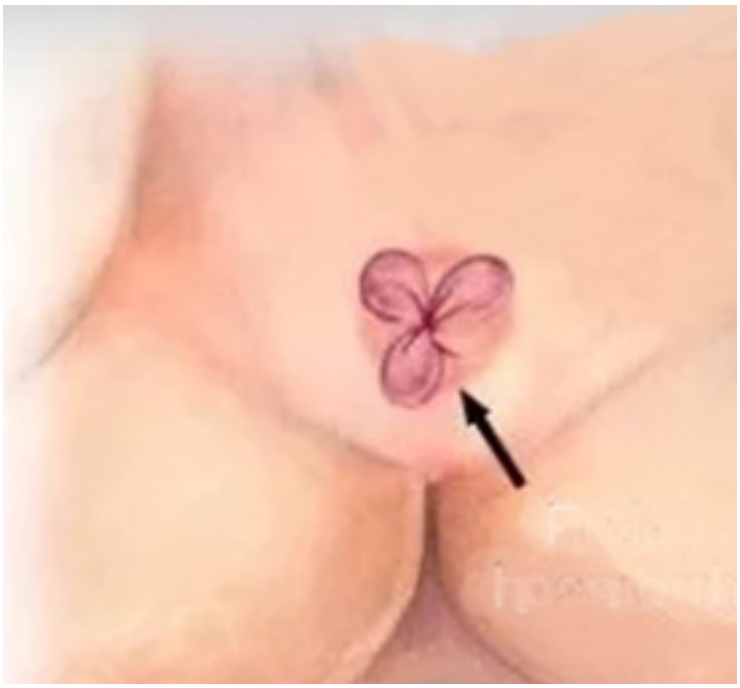
4. Prolapsed thrombosed intero external haemorrhoid in right lateral position. Note: Swelling and oedema of skin

Pain and swelling with past history of repeated episodes were indications for surgery.



Thrombosed haemorrhoid on day 4 - mostly perianal. Discharging blood, may be an indication for surgery, particularly if it continues to bleed. But pain and swelling are resolving therefore treated conservatively without surgery.

(Patient's decision)

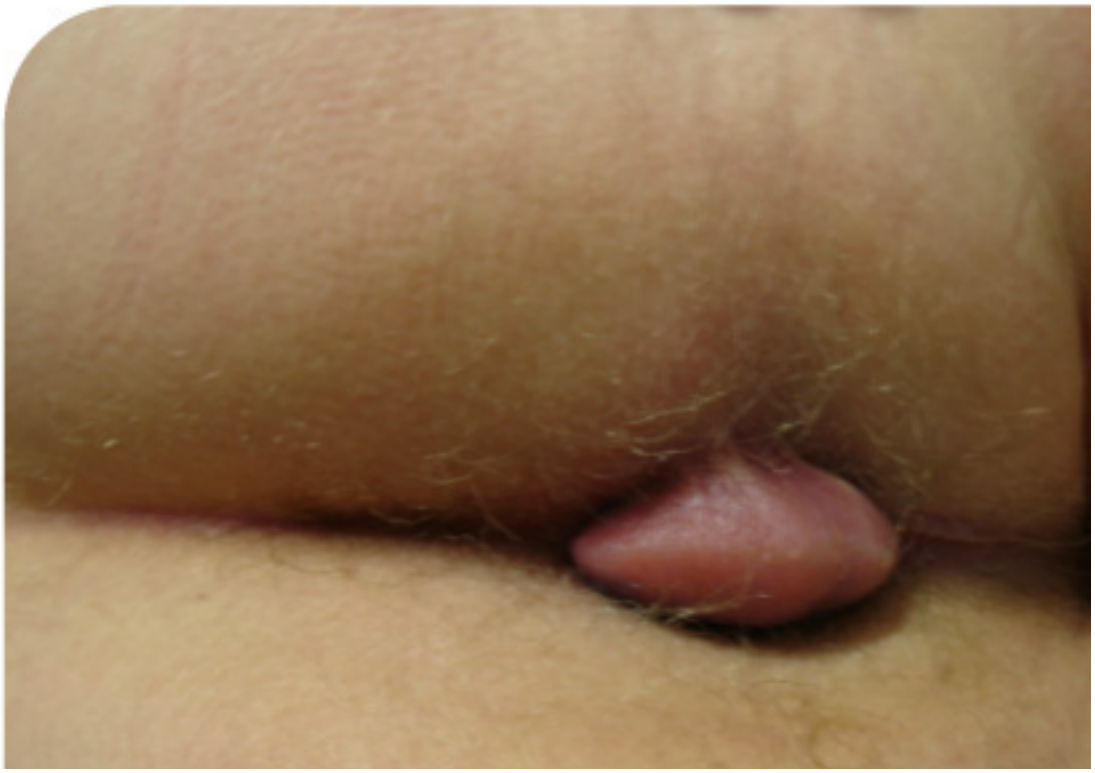


This shows three primary haemorrhoids in 3, 7 and 11 o'clock positions with accessory haemorrhoids in between.

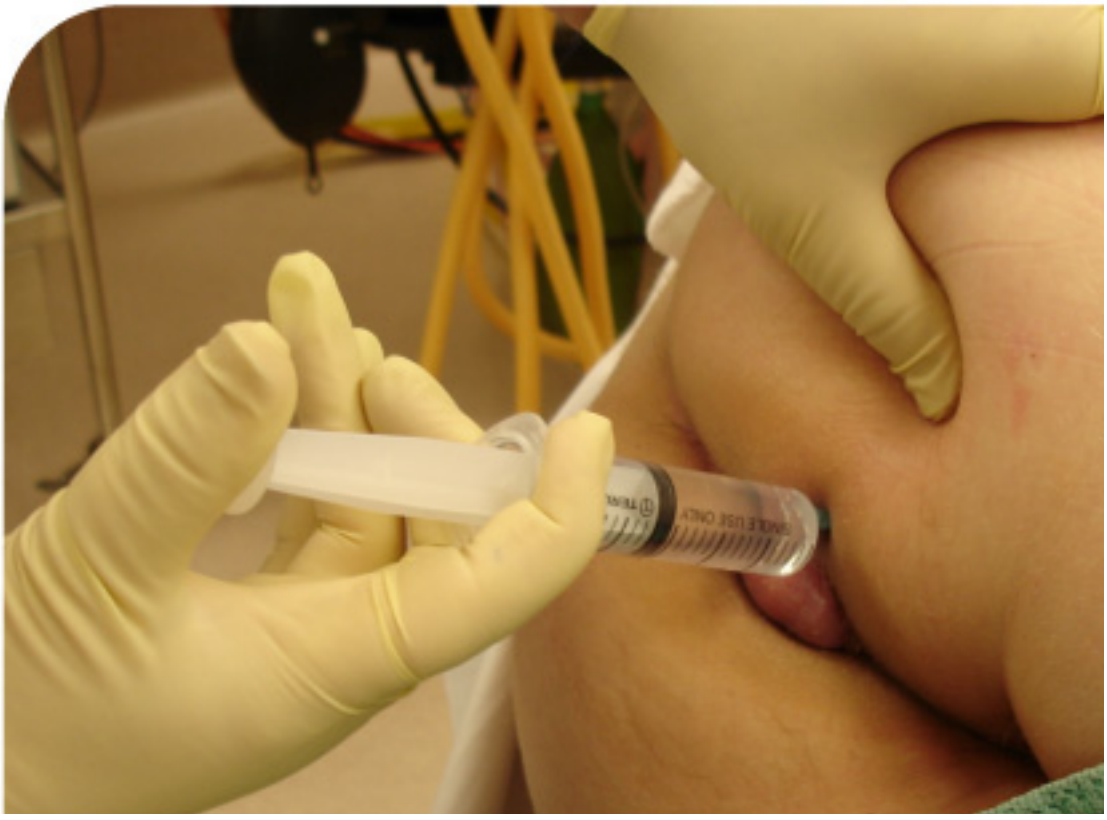
Note the external skin swelling and the corresponding mucosal haemorrhoidal engorgement. It may be appropriate to wait until the swelling resolves - treat with ice packs, bath sitz baths) and analgesics.

Operative Procedure

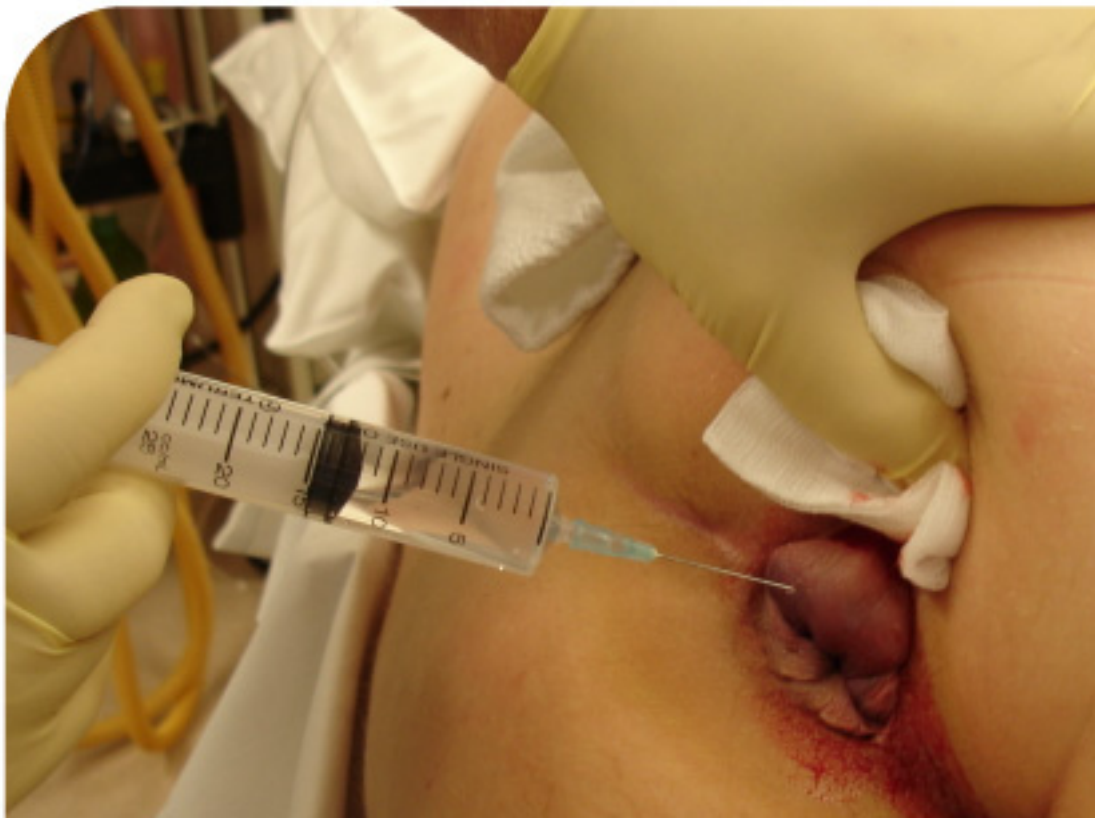
Operative procedure required, (although one could wait and it may resolve).



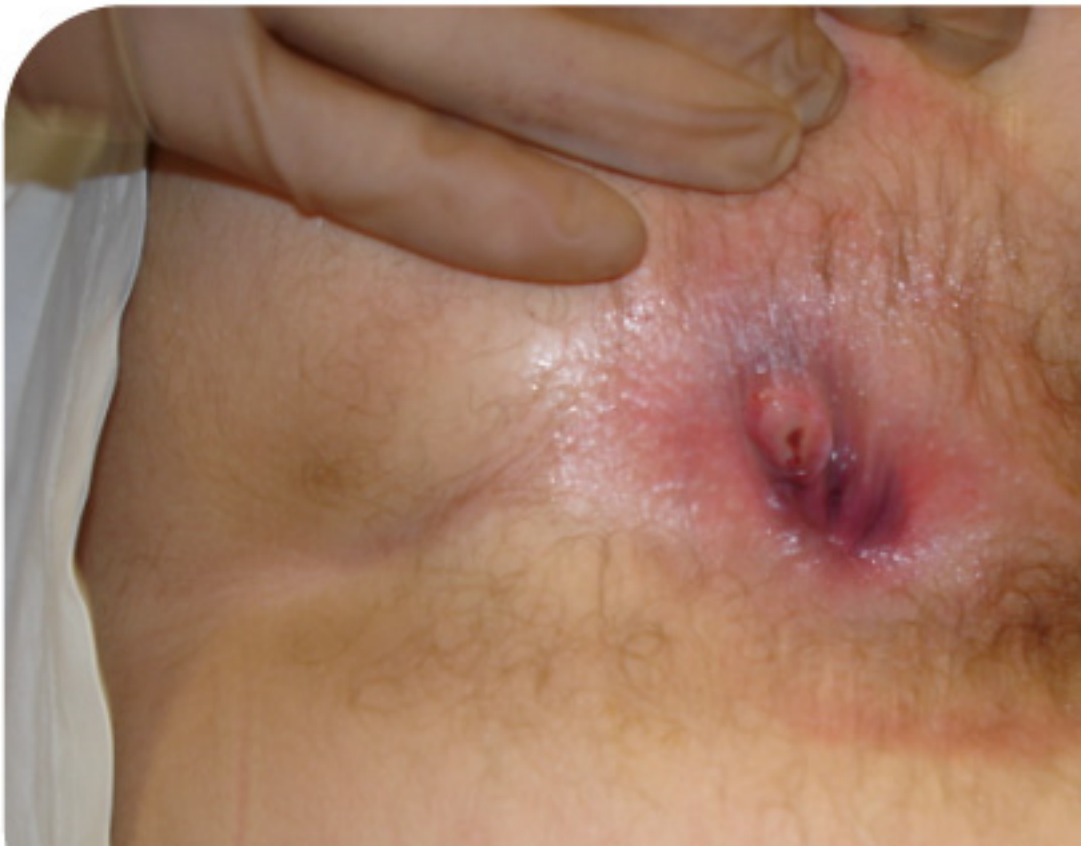
Prolapsed thrombosed intero external haemorrhoid in right lateral position. NB: Swelling of skin. Pain and swelling with past history of repeated episodes were indications for surgery. Surgery can be carried out under local anaesthetic and sedation. Patient shaved whilst in left lateral position. Proposed to excise only one haemorrhoid to reduce post-operative pain and promote early return to work.



Pudendal nerve block plus local infiltration using long acting local anaesthetic such as bupivicaine



Then local anaesthetic is injected directly into haemorrhoid for rapid onset of action and haemostasis. Adrenaline reduces bleeding.



A haemorrhoid has been excised in the office and the wound is now healing.

Risk management

The risk management here is to:

a) Establish a diagnosis,
b) Recommend treatment.

Not all haemorrhoids require surgical intervention and alternative treatments for each problem should be offered.

It should be remembered for any anal procedure that the post-operative recovery can be very painful particularly if a complication occurs. Thus the patient needs to be adequately warned about the possibility of pain and the possibility of fainting with pain or due to psychological responses.

The patient often comes for reassurance that they have not got a cancer. If cancer cannot be completely ruled out as a local cause of the problem then further examination with sigmoidoscopy and colonoscopy will be required.

For haemorrhoids, the treatment may consist of diet alone and review may be required. Other alternative treatments are local applications, which may sting, injection sclerotherapy, rubber band ligation and surgical intervention.

Haemorrhoids may be treated with injection or rubber band ligation but it should be remembered that either technique can be painful and complications such as infection or bleeding may occur - in particular secondary haemorrhage eight to ten days later or even reactionary haemorrhage within 24 - 48 hours of the procedure.

There needs to be adequate explanation for the procedure. If an office procedure is to be carried out the patient needs to be fully informed about the extent of the procedure and the aftercare. In particular risks of fainting and causing damage to oneself. The appropriate supervision afterwards is required.