

# Modern treatments for internal haemorrhoids

*Scalpel surgery is now rarely needed*

Almost everyone suffers from haemorrhoids at some time in their lives. The symptoms include bleeding, prolapsing tissue, fullness after defecation, and pain. Bleeding can mimic or mask the diagnosis of cancer and must be thoroughly evaluated. In most cases, however, swift, simple, and effective treatment can be given in an outpatient clinic or a health centre.<sup>1 2 3 4</sup> The key to understanding the feasibility of outpatient treatment is that there are no sensory nerve fibres above the dentate (pectinate) line in the anus, which is at the squamomucosal junction. Internal haemorrhoids arise above this line, so they can be treated without an anaesthetic. External haemorrhoids develop below the dentate line and are exquisitely sensitive. Little preparation is needed for the treatment of internal haemorrhoids, but an enema will make them easier to see as well as making the procedure more aesthetically acceptable.

Haemorrhoids are graded by the degree of prolapse, and this grading determines the most appropriate methods of treatment. First degree haemorrhoids are merely visible vessels, second degree lesions prolapse with defecation but return spontaneously, third degree lesions prolapse and require manual replacement, and fourth degree lesions remain prolapsed out of the anal canal despite attempts to reduce them.

The treatment choices for internal haemorrhoids include infrared coagulation, radiofrequency coagulation, direct current coagulation, rubber band ligation, sclerotherapy, cryosurgery, scalpel surgery, and laser surgery.<sup>5</sup> Scalpel surgery is generally reserved for advanced fourth degree haemorrhoids and is most often done on inpatients. Laser surgery is said to be less painful, but this has proved difficult to verify.<sup>6</sup> Sclerotherapy is usually indicated only in first and second degree lesions,<sup>7</sup> and in the United States it is now little used because of the frequency and severity of complications and the technical difficulties of proper placement of the sclerosant. A recent report in the *BMJ* described three patients who became permanently impotent after sclerotherapy for their haemorrhoids.<sup>8</sup> Cryotherapy is also little used because of the profuse and prolonged discharge, the complications such as excessive sloughing and sphincter injury, and the poor results.<sup>7</sup>

The least expensive and possibly the most widely used equipment is a rubber band ligator. This is suitable for first to third degree haemorrhoids. The bands are easy to apply, but the drawback is that two people are needed, one to hold the anoscope and the other to apply the bands. The treatment can cause severe pain if the bands are placed too low, and there is a small risk of perineal sepsis, which can, very rarely, be fatal.<sup>9</sup> Sepsis is a medical emergency signalled by fever, pain, swelling, and the inability to pass urine.

The infrared coagulator is gaining rapid acceptance for outpatient treatment of internal first and second degree haemorrhoids and some third degree ones. A special bulb provides high intensity infrared light that coagulates vessels and tethers the mucosa to subcutaneous tissues. The flat tip probe measures 6 mm in diameter and is applied for

1.5-2 seconds three to eight times to a localised area of haemorrhoids. Generally only one section of the haemorrhoids is treated per visit. Patients generally have two to four areas that need treatment and so have to return several times at monthly intervals until all have been controlled. Infrared coagulation is quick (10-15 minutes a visit), effective, and painless, and patients can return to work immediately or the next day. Eighty per cent of patients treated by this method are reported to be free of symptoms at three months.<sup>10</sup> In a meta-analysis comparing infrared coagulation, rubber band ligation, and injection sclerotherapy, infrared coagulation came out best.<sup>11</sup>

The radiofrequency coagulation unit uses a disposable probe with an electrical current flowing between two flat electrodes (positive and negative) aligned at the tip. Activating the unit for two seconds in three or four areas of the same haemorrhoid complex effectively coagulates the vessels. Although the manufacturer claims that all haemorrhoids present can be treated in a single session, I believe it is preferable to treat one area at a time to avoid excessive pain and bleeding.<sup>12</sup>

The direct current units use a probe with two sharp points as electrodes. They are promoted for use in all grades of haemorrhoids but seem to have two drawbacks. Firstly, each treatment takes eight to 12 minutes of probe contact. This is considerably longer than the six to 10 seconds required for infrared and radiofrequency units.<sup>4 13</sup> Secondly, the probes can penetrate deeply unless the operator is careful to stabilise them during treatment.

Whatever treatment is used, postoperative management is the same. The goal is to keep patients' stools soft by giving a high bulk diet and lots of fluids. Non-steroidal anti-inflammatory drugs will usually control any discomfort. Sitz baths may help in rare cases where needed. Suppositories are rarely necessary.

The clear advantages of the modern methods for outpatient treatment of internal haemorrhoids are that they are quick and relatively painless. Patients lose little if any time from work, the complications are minor, and the cure rates are high.<sup>14 15</sup> Pain is generally attributable to placing the treatment probes too far distally.

Patients may have a little spotting of blood for a few days and slightly more bleeding may occur after 10-14 days, when the eschar sloughs, but major haemorrhages do not occur as in the old style surgical approaches. No episodes of perineal sepsis, death, or impotence have been reported with the newer methods. The failure rates are reported to be 10-20%, but all that is needed is further treatment. A complication seen in 1-2% of patients (but not reported in the literature) is external haemorrhoidal thrombosis, usually associated with treatment of too extensive an area of internal haemorrhoids at one visit.

Formal surgical intervention is still occasionally necessary, but patients dislike it because of the associated severe pain and morbidity. Modern treatment methods may be mastered by doctors working in primary care, and they provide a prompt effective treatment in most cases.

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