

How I do it

Excision of fistula in ano

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In 1900, D. H. Goodsall [1] described the rule that became eponymously associated with him and reviewed the operations then available, namely laying open (fistulotomy), excision of the track (fistulectomy), insertion of a seton and injection with silver nitrate. In modern surgical practice injections have been abandoned but fistulotomy and/or use of a seton remain in widespread use. Fistulectomy has been criticized on grounds of difficulty and unnecessary tissue loss leading to slow healing [2, 3] but the method does have advantages over fistulotomy particularly for the higher or more complicated fistula.

Advantages of fistulectomy

1. The course of the fistula is more easily followed if the track is cored out under direct vision.
2. There is no risk of laying open false tracks by cutting down on an incorrectly placed probe.
3. Side tracks are less easily missed as transected granulation tissue is clearly seen.
4. Blind tracks may be identified and removed without dividing overlying tissue.
5. The precise anatomical relationships of the fistula path are clearly defined *before* any division of sphincter muscle.
6. The entire fistula track is available for histology.

Technique

The patient is given a light general anaesthetic to preserve good sphincter tone and placed in the lithotomy position. The external opening of the fistula is grasped with tissue forceps or a stay suture. It is usually best to start with a posterior opening as, in the lithotomy position, bleeding from an anterior

wound can impair a later and more posterior operative field. An incision is made around the external opening and, using fine scissors, the track is cored out of the surrounding tissue, taking all granulation tissue and just sufficient fibrous tissue to allow gentle traction. The core should be no more than one centimetre in diameter in order to avoid excessive tissue loss and consequent prolonged healing. Haemostasis is secured with diathermy and must be impeccable if granulation tissue is to be reliably identified. The appearance of granulation tissue means that either the track has been entered or that a side track has been crossed. In the latter event, it is usually better to trace out the side track before proceeding further with the main track as the transected granulation tissue may be difficult to find later. Blind tracks are usually the result of an ischiorectal abscess and may extend to the apex of the ischiorectal fossa. They may be difficult to trace to their origin but with adequate retraction and careful haemostasis the core of granulation tissue can be completely removed, ensuring that high trans-sphincteric or suprasphincteric tracks are not missed. As the dissection proceeds, sufficient overlying skin and fat is divided to gain access but this stops well short of the anal margin until all tracks have been followed to their origins. At this point the precise anatomical relationship of the fistula track to the sphincter musculature should be clear and a decision can be made on how to proceed according to the course of the track and position of the internal opening.

The low fistula

In most cases the overlying muscle may be divided without risk to continence. The tunnel left after coring out the fistula is converted to a laid open wound, achieving the same end as by cutting down on a probe but with the advantages enumerated above. In the very elderly or those whose sphincter has already been damaged by obstetric trauma or

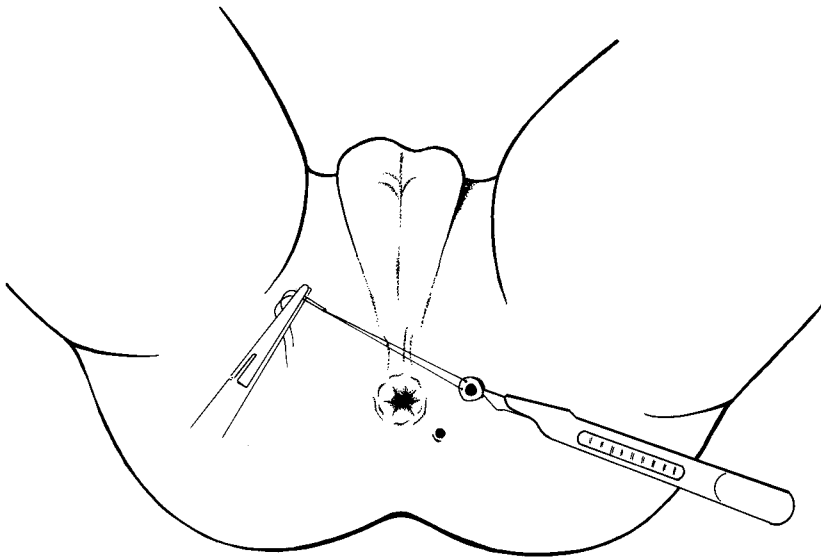


Fig. 1. Commencing the dissection of the upper tracks

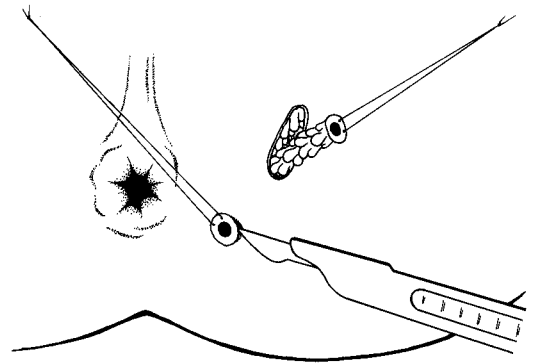


Fig. 2. Dissecting the lower tracks

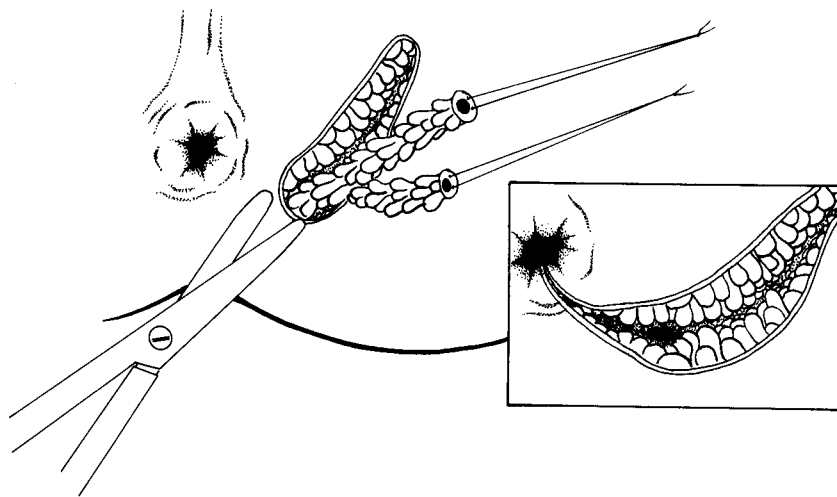


Fig. 3. Tracing the conjoined tracks

Fig. 4. Completed superficial fistulectomy

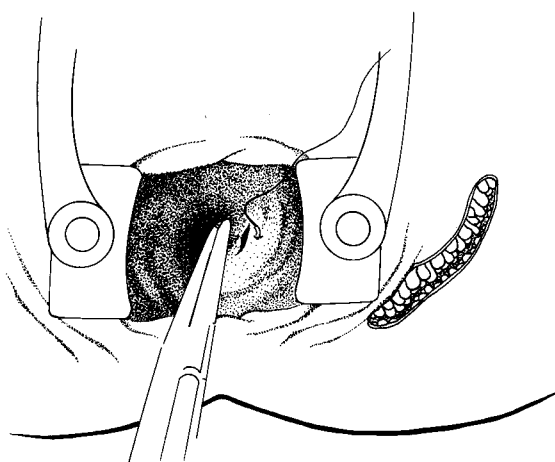


Fig. 5. High trans-sphincteric fistulectomy. Closing of the rectal wall in two layers

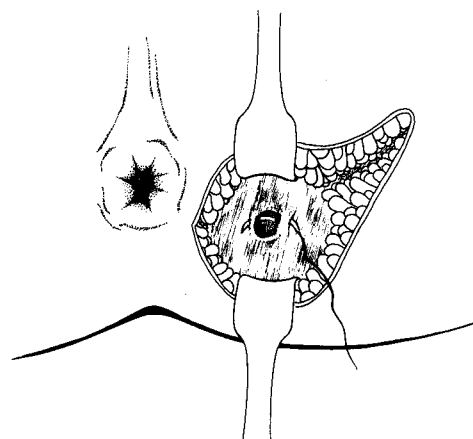


Fig. 6. High trans-sphincteric fistulectomy. Closing of the opening in the external sphincter

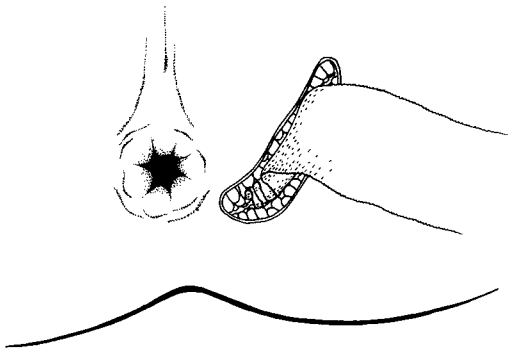


Fig. 7. Completed high trans-sphincteric or suprasphincteric fistulectomy

previous sphincter surgery it may be considered unwise to divide overlying muscle and these patients may be managed as below.

The high fistula

In these patients, the tunnel cannot be converted into a laid open wound without rendering the patient incontinent. The methods available for dealing with this situation include a colostomy, primary suture of the entire wound, closure of the rectal opening alone with or without mucosal flaps, the use of a seton, and re-routing of the fistula track [3–6]. My own preference is to close the rectal wall in two layers with vertical mattress sutures of 2/0 “Vicryl” and then to close the tunnel in the sphincter muscle or pelvic floor with the same material. The remaining wound is packed lightly with ribbon gauze soaked with povidone iodine. In the case of recurrent fistulae a temporary colostomy is always recommended and if any attempt is made to improve continence by suturing previously divided muscle (not usually advisable), it is essential. A 5-day course of metronidazole and cefotaxime is commenced perioperatively.

Post-operative care

Shallow wounds following operation for very superficial fistula need no special treatment. Patients leave hospital on the same or following day and take frequent saline baths until the wound is healed. Deeper wounds require conventional fistula dressings to ensure proper healing. Patients are discharged when there is sufficient fibrosis to prevent premature closure of the wound. After operation for high fistula the pack must be replaced daily

and the wound inspected under general anaesthetic on at least one occasion preferably after about ten days. Good healing of the rectum and base of the wound is usually apparent. On the one occasion that the suture line had clearly broken down the remaining perianal skin and mucosa was divided and a seton was inserted and managed in the conventional manner. Although the fistula did not recur, postoperative continence was poor.

Results

Although any fistula in ano may be dealt with by this method the operation does take longer than simple fistulotomy and the advantages of fistulectomy may be less relevant in the very superficial fistula. Fistulae associated with a recent abscess are less suited to fistulectomy as the necessary haemostasis is hard to achieve and the associated oedema encourages removal of excessive tissue.

In the years 1976 to 1986 more than 100 low fistulae were treated by this method at the Royal Free Hospital with 2 known recurrences only 1 of which followed the original track and probably resulted from inadequate postoperative care. Between 1972 and 1986 18 high trans-sphincteric or suprasphincteric fistulae were treated by fistulectomy with suture as described above, of whom 4 had a temporary colostomy. The majority of these patients were treated in West Africa and had extensive and complicated fistulae. So far there has been one known recurrence. This caused no significant symptoms and the patient refused further surgery.

References

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