ANAL FISSURES AND FISTULAS

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Anal fissure—a vertical split in the squamous lined lower half of the anal canal.

Symptoms of anal fissure

- Anal pain during and after bowel action
- Minor bleeding
- Irritation
- Constipation

Anal fissures most commonly affect patients aged between 30 and 50. They are equally common in men and women. A fissure is a split in the lower half of the anal canal extending from the anal verge towards the dentate line. Most fissures are posterior, but anterior ones are often seen in women. The cause is not clear, but a fissure often starts after an attack of either diarrhoea or constipation. Some heal spontaneously but many become chronic, causing months of misery.

Reflex spasm of the external sphincter occurs whenever the fissure is disturbed. There is also a background tightness of the internal sphincter, which may well be the primary fault because correction of this abnormality almost always cures the fissure. The base of the fissure has somatic innervation, so pain can become intense after a bowel action and last as a dull pain for many hours. A chronic intersphincteric abscess can cause a similar sort of pain, but pain severe enough to warrant emergency admission to hospital must be assumed to be due to a high anorectal abscess.

Diagnosis

Unless there is intense spasm the lower end of a fissure will come into view with the patient in the left lateral position as the perianal skin is gently retracted. After a time the skin at the base of the fissure becomes oedematous and hypertrophied, forming a sentinel pile. A limited rectal examination to assess the degree of spasm is useful because this is an important guide to treatment, but it is often impossible because of pain.

Treatment

If there is little spasm correction of constipation with a bulking agent aided by a topical anaesthetic is usually sufficient. Relapse is quite common. Minor surgery should be offered to those with severe pain and spasm from the outset or if symptoms have been present for one month.

Gentle dilatation of the anus and lateral subcutaneous sphincterotomy are both effective for correction of internal sphincter tightness as day case procedures. Both methods work by reducing resting anal pressure to normal. The sentinel pile should be excised if present. In controlled trials anal dilatation has been shown to be slightly inferior to lateral subcutaneous sphincterotomy with respect to recurrence rate and the incidence of minor complications such as lack of control of flatus. Permanent cure can be expected, but a long term high fibre diet is advisable.

Retraction of perianal skin revealing a fissure.

Anal fissure with sentinel pile.

Anal pressures before and after procedures for fissure. The high pretreatment values may induce local ischaemia sufficient to prevent spontaneous healing.

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Anorectal abscesses and fistulas

Anal canal showing spread of infection from gland.

Perianal abscesses.

Drained perianal abscess.

An abscess and a fistula are respectively the acute and chronic sequelae of an infected anal gland. About 10 glands drain into the anal canal at the level of the dentate line. Some penetrate the internal sphincter to reach the intersphincteric space.

The common perianal abscess comprises downward spread between the internal and external sphincter. In the 5% of patients in whom infection spreads upwards between the sphincters increasing pain is prominent. There are no external signs and a rectal examination may be painful but would be diagnostic.

By the time symptoms have been present for 24 hours incision and drainage are required. Antibiotics rarely abort the infection. A fulminating infection may occur in immunocompromised and diabetic patients and requires broad spectrum antibiotics and generous drainage.

In general, anorectal abscesses do not require wide incision, nor does the cavity need to be packed. Recurrence occurs in up to 25% of patients because there is still a tiny communication between the infected anal gland and the anal canal (a fistula). The opening is often minute. It is unwise to look for it when the abscess is drained because it is easy to make a false passage with a probe. If the abscess is recurrent, and especially if *Escherichia coli* is grown from the pus, the chance of a fistula is high, so the patient should be examined in the operating theatre one week after drainage to find the fistula and lay it open to prevent further recurrence.

Anal fistulas

Anal fistula.

Many fistulas start as an abscess; others develop insidiously. A few are due to Crohn's disease, which is usually active in the colon or, occasionally, just in the terminal ileum. Rarely, fistulas are caused by trauma, tuberculosis, or a neglected carcinoma. The symptoms are persistent or recurrent discharge or abscess in the perianal region. In chronic intersphincteric abscesses, which are uncommon, the discharge is from the anus itself.

Stenosed internal opening.

Most fistulas have a fairly straight track between an external opening close to the anus and an internal opening in the anal canal at the level of the anal valves. The internal opening is about one third of fistulas is tiny or stenosed, but if it is not found and excised along with the chronically infected intersphincteric gland recurrence is common. In practice, careful probing, following granulation tissue or using dilute methylene blue, will suffice. The track is simply laid open, dividing the lower portion of the sphincters. The wound edges are trimmed to leave a shallow, pear shaped wound.

Features of a complex fistula

- Recurrent trouble after surgery
- Multiple external openings
- Induration felt above puborectalis
- Probe from external opening passes vertically upwards instead of toward the mid-anal canal

About 5% of fistulas have complex branching tracts passing high up through the sphincter complex, and initial attempts at surgery often fail because of inadequate exploration of tracks for fear of producing incontinence.

Palpation of high tracts on rectal examination.

Puborectalis sling around the anorectal junction.

Laying open the fistula track. A seton of silk suture is passed through the suprasphincteric track and tied around the fistula track. The lower part of the fistula track has been laid open. The suture is replaced and tightened at intervals of a few weeks until it cuts out. The puborectalis muscle does not spring apart as it would if divided in one stage.

The puborectalis sling, which maintains a right angle at the anorectal junction, is the most important component of anal continence. Provided it is intact there will be no major loss of continence. Occasionally a fistula passes over or through the puborectalis, and if it were laid open in one stage continence would certainly be at risk. This is an unacceptable price to pay for cure of a fistula.

Many ingenious methods have been devised to preserve the external sphincter complex when the puborectalis is affected, but unfortunately they all seem to have an appreciable associated recurrence rate. The fistula can be cured, however, provided the tracks are fully explored and laid open in stages.

After care

The simple fistula wound requires nothing more than regular baths and a gauze swab moistened with an antiseptic solution applied to the wound once a day. The care of a complex fistula wound is the responsibility of the surgeon and should not be delegated to the district nurse. The deep anal wound necessary to lay open a high track must not be allowed to close down too soon on the outside. This demands proper shaping of the wound. The first dressing can be done in the operating theatre after five or six days. Thereafter the surgeon should check with his or her finger at the daily dressing that no deep cavities or pockets are reforming. A dressing is simply laid in. This may need a longer period in hospital but is a small price to pay for cure of a troublesome fistula.

Ribbon gauze packing may be harmful by keeping a deep wound open. Gentle exploration with the finger keeps the cavity open to encourage healing from the bottom.

Perianal fistula in Crohn's disease.

Crohn's perianal fistula presents a special problem. It has a distinctive appearance, with more oedema and surprisingly little discomfort. If there is active Crohn's disease in the colon or rectum a surgical wound in the anus may never heal. Provided the intestinal Crohn's disease can be brought under control by steroids, sulphasalazine, or appropriate surgery the fistula can be treated conventionally. If disease continues in the colon troublesome anal sepsis or fistula may tip the balance in favour of an early panproctocolectomy.

The photographs were produced by the department of medical illustration, Salford Health Authority, and the line drawings were prepared by Paul Somerset, medical illustration department, Wythenshawe Hospital.

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The New NHS: first year's experience

Freeman Hospital: working to improve services

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Before Freeman Hospital became a trust in April 1991 the doctors and managers who now run it asked themselves what was the most disastrous thing that could happen. "Our worst case scenario was that we could do a lot of work and not be funded for it," said Dr Ian Griffiths, medical director of the hospital and consultant rheumatologist.

By March 1992, with medical admissions 27% above the level covered by contracts and surgical admissions 9% above, the spectre of the trust not being paid for its extra hard work was raising its ugly head. But not for long.

The Freeman has now agreed deals with the four health authorities—Newcastle, Gateshead, North Tyneside, and Northumberland—which together send the hospital about three quarters of its patients. The trust will not get full reimbursement at the contract rate for the excess patients treated—but neither will it be penalised where there has been a shortfall. And because the hospital's overall activity rose its net income is bound to increase.

According to the Freeman's contract for internal medicine, which is mainly emergency work, the

hospital should have treated 3700 patients by the end of January 1992, with a target of 4400 by the end of March 1992. Instead, by the end of January it had already treated 4700 general medical inpatients (table I).

Dr Griffiths puts this overshoot down to two factors: the influenza epidemic and the fact that beds were sometimes not available at other hospitals in Newcastle over the winter. General practitioners who were trying to find beds for their patients were often told, "Try the Freeman."

The last thing the Freeman wanted was to refuse to take the overspill. Len Fenwick, the hospital's general manager, said: "We have yet to see money truly following patients in many respects, so the Freeman has overperformed in many of its areas without compensating reimbursement. It's catch 22: if we were to close beds, refuse admissions, then we would be held up by political opponents as an example of how not to run the NHS."

For local general practitioners this policy meant a vast improvement in the service offered by the Freeman, compared with the other two hospitals in Newcastle, the Royal Victoria Infirmary and the Newcastle General Hospital. Dr Alan Davison, secretary of the local medical committee, said: "Particularly during the bad weather, the RVI was closed to GP admissions on numerous occasions. But there have been far fewer complaints from local GPs about the Freeman, which has provided a very good service."

The Community Health Council is less free with its compliments. Peter Selman, who chairs the council, said: "It's very difficult to get a clear picture that proves the success or failure of the trust." Despite the council's opposition to the trust, he added, there had been no attempt to exclude the council, and every attempt to involve it.

For the trust, absorbing so many extra patients meant that other specialties could not always admit their own. In rheumatology, for example, about 10% fewer patients had been treated than the contracts allowed for. Newcastle Health Authority, one of those that is having to provide some more cash, knew that extra activity in one area meant that contracts in other specialties were not being fulfilled. Bernard Canning,

TABLE 1—Activity for internal medicine at Freeman Hospital in 10 months up to 31 January 1992 -

Purchaser	No of patients actually treated	No of patients expected to have been treated	Difference	% Variation	Annual target	% Of annual target
Hartlepool	8	10	-2	-20.0	15	53.3
North Tees	8	4	4	100.0	2	400.0
South Tees						
East Cumbria	32	10	22	220.0	16	200.0
South Cumbria						
West Cumbria						
Darlington						
Durham	25	20	5	25.0	26	96.2
North West Durham	36	20	16	80.0	25	144.0
South West Durham						
Northumberland	381	300	81	27.0	357	106.7
Gateshead	221	170	51	30.0	208	106.3
Newcastle	2725	2240	485	21.7	2683	101.6
North Tyneside	1041	750	291	38.8	900	115.7
South Tyneside	116	90	26	28.9	105	110.5
Sunderland	75	60	15	25.0	71	105.6
Northallerton	1	2	-1	-50.0	4	25.0
Borders	0	2	-2	100.0	4	0.0
Dumfries	2	1	1	100.0	2	100.0
Total	4671	3679	992	27.0	4418	105.7