Six (19%) of the 32 men carrying yeasts were circumcised compared with 35 (24%) of the 143 not habouring yeasts. Of the total 175 patients about 70% were from the UK or Eire and 20% from the West Indies. There was no significant difference in carriage rate in the racial groups or in the three main diagnostic groups. Thus nine (22%) of the 41 men with gonorrhoea, 13 (21%) of the 61 men with non-specific urethritis, and eight (17%) of the 47 men with no abnormality carried yeasts. Relatively few women contacts attended, but eight out of 11 contacts of the 32 yeast-positive men harboured yeasts in the vagina compared with six out of 25 contacts of the 143 yeast-negative men ($P < 0.02$).

Sites of recovery of candida and torulopsis

Species	Total	CS+ FN−	CS− FN+	CS+ FN+
C albicans	10	9	0	1
Other *Candida* species	7	4	2	1
Torulopsis	3	1	1	1

CS = coronal sulcus; FN = fossa navicularis.

Comment

The high carriage rate of yeasts in these patients suggests that sexual transmission could account for many instances of yeast infection in women. This is supported by the findings in the female contacts and the increasing incidence of genital yeast infection in both sexes reported by VD clinics.[1] Women might, however, acquire the organism in other ways and the male partner then be infected by sexual contact. The risk of the man infecting others will depend on how long the yeasts persist. Serial cultures were not taken in this study, but of the 20 men with proved candida or torulopsis infection 10 had not had sexual intercourse for two weeks or more, and four of these 10 not for one to three months.

We thank Dr D W R Mackenzie for identifying some of the isolates.

[1] Department of Health and Social Security, *Annual Report of the Chief Medical Officer for 1973*, p 48. London, HMSO, 1974.
[2] Willmott, F E, *British Journal of Venereal Diseases*, 1975, **51**, 119.

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Abdominoperineal resection in acute myeloblastic leukaemia

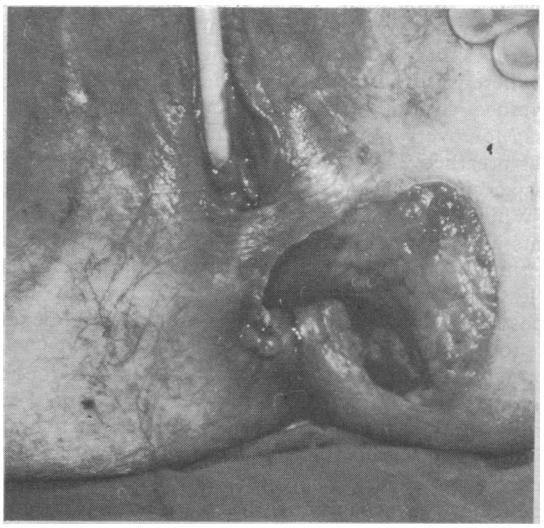
Anorectal infections may be the presenting feature in cases of leukaemia (1% of patients in a recent MRC trial[1]). They are often slow to heal, sometimes enlarge at a disturbing rate, and are a focus for disseminating infection in the presence of immunological impairment. We report what we believe is the first case of this nature treated by abdominoperineal excision of the rectum.

Case report

A 24-year-old housewife was admitted to hospital with a perianal abscess. She was very pale but there were no other abnormal physical findings. Blood examination showed Hb 5·5 g/dl; WBC 3×10^9/l (3000/mm^3), of which 99% were blast cells; platelets 50×10^9/l (50 000/mm^3). Sternal marrow biopsy confirmed the diagnosis of acute myeloblastic leukaemia. She was transfused with packed red cells, white cells, and platelet concentrate. The gastrointestinal tract was sterilised by giving nystatin and then adding framycetin and colistin. Under broad spectrum antibiotic cover the abscess was incised. It contained necrotic tissue—but no pus—from which coliform organisms sensitive to ampicillin were cultured. The leukaemia was treated by a regimen of cytotoxic drugs including daunorubicin and cytosine arabinoside.

Despite these measures the abscess extended to erode the left lateral rectal wall and adjacent ischiorectal fossa, establishing a faecal fistula, and continued outwards to the ischial tuberosity and up to but not through the pelvic peritoneum. Recurrent massive local haemorrhages required repeated blood transfusion. Three weeks after the incision septicaemia developed (*Pseudomonas pyocyanea*), which was complicated by acute tubular necrosis. Renal function recovered without dialysis. A defunctioning sigmoid colostomy was performed, which slowed the progress of the lesion, but by this time there was a large cavity with a skin defect of 8 cm × 10 cm (see fig) and spontaneous healing seemed impossible.

Finally, 10 weeks after presentation and coincident with bone marrow evidence of leukaemic remission, abdominoperineal excision of the rectum was performed with local and systemic antibiotic cover. After debridement of the abscess cavity the perineum was closed by primary suture. Remarkably, there were no postoperative complications and wound healing was satisfactory. The patient left hospital a month later. After one year the perineum remained healed. She continued on cytotoxic therapy.



Perinanal abscess cavity in patient with acute myeloblastic anaemia.

Comment

Walsh and Stickley[2] first described a case of acute leukaemia presenting with infected haemorrhoids. Anorectal infection occurred in 25% of all cases in one series of leukaemics,[3] although most of them had acute monocytic leukaemia, in which infection and necrosis at mucocutaneous junctions is most often seen. In leukaemia a perianal or ischiorectal abscess is unlikely to contain pus if the peripheral blood neutrophil count is low. Incision may then delay resolution. As white cell transfusions become more readily available they will probably be of value in these cases. Attempts to reduce the gut flora by giving non-absorbable antibiotics by mouth, as has been recommended[4] to prevent the spread of endogenous organisms in leukaemics during induction therapy, are unlikely to influence an existing anorectal infection. The place of local radiotherapy is not clear, although encouraging results have been reported in a random sample of cases.[5] It would seem to be justified when there is leukaemic infiltration.

Any major surgical procedure must be timed to coincide with a leukaemic remission. Defunctioning sigmoid colostomy is a logical step if conservative measures fail. The formation of a faecal fistula or the presence of faecal incontinence are absolute indications for diversion. Abdominoperineal excision of the rectum, however drastic it may seem to have been, clearly salvaged this patient, whose abscess would have taken months to heal and at times might have been life-threatening.

We thank Dr R P Britt for his help in writing of this report.

[1] Galton, D A G, *et al*, *British Journal of Haematology*, 1974, **27**, 373.
[2] Walsh, G, and Stickley, C S, *Southern Medicine and Surgery*, 1934, **96**, 648.
[3] Schimpff, S C, Wiernik, P H, and Block, J B, *Lancet*, 1972, **2**, 844.
[4] Gaya, H, personal communication.
[5] Sehdev, M, *et al*, *Cancer*, 1973, **31**, 149.

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