tumours—all in children aged over 10 years. Two children died of cardiovascular lesions, and four patients died of pulmonary lymphangiomyomatosis, all of whom were aged over 40. The remaining deaths were from status epilepticus.¹⁶ The implication of these findings is that clinicians need to be more aware of the adult complications of tuberous sclerosis, since in its milder forms the condition seems to be more widespread than was once thought.

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Over the counter treatment for candidiasis

An opportunity to educate

Antifungal creams for external treatment of candidiasis have been available without prescription for some time. This summer sees the launch of over the counter intravaginal treatments by two pharmaceutical companies, and more are likely to follow soon. These will cost about £2 more than the current prescription charge, but many patients may consider this a small price to pay for the convenience and control it gives them.

Vulvovaginal candidiasis is a common problem, frequently discussed in women's magazines, although the information given is often inaccurate and unscientific. Many women already treat themselves: some apply antifungal cream intravaginally on the end of a tampon, but more often they use other topical treatments—such as yoghurt, garlic, vinegar, Dettol, or TCP. Some even follow "yeast free" diets purporting to "eliminate candida from the body." Literature advocating these diets ascribes fluid retention, endometriosis, period pain and cramps, and impaired libido to "chronic candida infection."¹ Clearly patients want to control their own management, and there is a need for wider availability of effective treatments.

These treatments are marketed only for uncomplicated candidiasis occurring in women who have already suffered from, and are able to recognise, the condition; any patient with symptoms for the first time is advised to see her doctor. (As an advertisement in the United States for a similar product suggests, "If you THINK you have thrush, go to your doctor; if you KNOW you have thrush, buy Brand X.") As manufacturers are keen to gain the support of doctors and pharmacists, the packet inserts contain general advice about candidiasis and warn the patient to consult her doctor if she has symptoms suggestive of a sexually transmitted disease such as vulval blisters, abdominal pain, or an offensive discharge.^{2,3} Other contraindications listed include pregnancy, irregular or abnormal vaginal bleeding, dysuria, pyrexia, vomiting, and diarrhoea.

When over the counter treatment for candidiasis becomes available doctors may see fewer cases overall but more patients presenting with "treatment failure" or recurrent

symptoms. Treatment failure will occur if medication is used inappropriately, usually because the initial diagnosis is wrong. Conditions such as bacterial vaginosis may mimic candidiasis, as may sexually transmitted diseases. Trichomoniasis, genital herpes, and genital warts cause vulval soreness and itching, and their management includes a search for concomitant sexually transmitted diseases and notification of sexual partner(s). As sexually transmitted diseases are often asymptomatic all women at risk should ideally attend a clinic for sexually transmitted diseases for full investigation.

The differential diagnosis of recurrent candidiasis includes mild attacks of genital herpes and psychosexual problems. Such problems may also be caused by candidiasis, with painful sexual intercourse leading to tension, which persists after the candida has been eradicated. These patients will have most pronounced symptoms during sexual intercourse and may have vaginismus on examination.

Proved recurrent candidiasis needs investigation for an underlying cause, although one is seldom found. Recognised predisposing factors include diabetes, immunosuppressant drugs, and HIV infection.⁴ Despite popular belief there is no convincing evidence that modern oral contraceptives increase the risk of vulvovaginal candidiasis.⁵

As doctors we should aim to educate our patients, encouraging self treatment when appropriate, but we should remember that in more complex cases a full sexual history must be taken and the patient examined.

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