Pityriasis Versicolor in Europe
Not Just a Tropical Disease

Norton D*

“The true incidence of pityriasis versicolor in temperate climates may be underestimated, as many cases never reach dermatologists,” said Swedish expert Professor Jan Faergermann at a recent symposium — Oral Therapy in Dermatomycoses: a Step Forward. The symposium, held in Frankfurt on 1-2 February 1985, discussed a wide range of dermatomycoses and their treatment with the potent and effective oral antifungal agent — ketoconazole. An entire session was devoted to pityriasis versicolor.

Pityriasis versicolor, explained Professor Faergermann, is a superficial chronic fungal disease characterized by discoloured lesions on the skin and is caused by an invasion of the stratum corneum by the parasitic form of the fungus *Pityrosporum orbiculare.

While the disease is most prevalent in tropical areas such as Samoa and Liberia, where half the adult population may be affected, it is also found in temperate areas of Europe, although measurements of its incidence (documented as 1.1% in Sweden, 3.7% in Italy and 0.5% in West Germany) could be misleadingly low.

The aetiological agent of the disease is found, explained Professor Faergermann, as a member of the normal human cutaneous flora and the change from saprophytic to pathogenic form depends on 'exogenous' and 'endogenous' factors.

In the tropics, the exogenous factors of high temperature and high relative humidity ensure a high incidence of the disease while the cosmetic use of body oils in these areas perhaps contributes to the growth of the lipophilic fungus. (Table 1).

In Europe, by contrast, endogenous factors are more important in the development of the disease although there is a higher incidence during the summer months when the temperatures and humidity are high.

Professor Faergermann reported an age maximum of between 20 and 35 years and a female dominance in European studies. Evidence was presented for an hereditary factor and an association of the disease with seborrheic dermatitis in European patients, the infection being primarily restricted to seborrheic areas of the body, often where the occlusion of clothes produces a local environment of high temperature, humidity and CO₂ tension. Other endogenous factors found to be important in European countries include a defect in the lymphocytic response, excess sweating, systemic corticosteroid treatment, malnutrition and the presence of Cushing's syndrome.

On the subject of therapy, Professor Faergermann described both topical and oral treatments and, while he expressed a preference for administering topical preparations in shampoo as opposed to ointment form, he pointed out that recurrence rates of 60-80% are not prevented with topical therapy.

Professor Faergermann described a study of 32

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<th>Exogenous factors</th>
<th>Endogenous factors</th>
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<td>High humidity</td>
<td>Systemic corticosteroids</td>
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<td>High temperature</td>
<td>Defect in cell-mediated immunity</td>
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<td>Application of fatty materials on the skin</td>
<td>Immunosuppressive treatment</td>
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<td>Malnutrition</td>
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patients who were given 200 mg oral doses of ketoconazole once daily. After 3 weeks, 26 were cured and all were improved; all were cured after 5 weeks. As a prophylactic regimen, Professor Faergemann suggested ketoconazole, 200 mg orally for 3 consecutive days each month in order to keep patients clear of the disease. He also recommended ketoconazole "where pityriasis lesions are resistant to topical treatment, where lesions are very extensive and in the case of frequent relapse".

Several studies presented at the symposium addressed the problem of the best treatment schedule for ketoconazole in pityriasis versicolor and the 200 mg, once-a-day for 10 days regimen was shown to be optimal. Dr. C. Meisel (West Germany) and Dr. L. Wouters (Belgium) compared 1-day, 5-day and 10-day treatments and found that the 10-day treatment gave full clinical and mycological cure. Shorter treatment regimens were found to be less effective.

In support of these findings, the preliminary results of a ketoconazole trial with pityriasis versicolor in 7 European countries were reported by Dr. D.S. Jolliffe from the Cambridge Military Hospital in England. Dr. Jolliffe found 88.5% clearance of infection and substantial regression of symptoms in patients examined 20 days after completion of a 10-day course of once-daily 200 mg doses of ketoconazole. Standard topical treatment was described by Dr. Jolliffe as ‘difficult’ and in the discussion of his European study, he spoke of ketoconazole as "a very easy and convenient form of alternative therapy".

Longer treatment regimens (up to 30 days) were discussed by Professor S. Sampaio (Brazil) but were found to be no more effective than the 10-day treatment.

An important point stressed by Dr. Wouters is that clinical cure progressed after the end of ketoconazole treatment (Figure 1). This ‘evolution’ of cure with time may relate to several factors. First, at the end of 10 days of ketoconazole therapy, any remaining spores may no longer be viable and will thus gradually disappear from the skin. Secondly, ketoconazole arrives quickly in the stratum corneum of the skin (via the eccrine sweat and via passive diffusion from the blood) but it remains for a long time. This is related to the facts that ketoconazole has a high affinity for skin cells and sebum and that ketoconazole is also delivered to the skin via the sebum and this delivery continues long after the end of therapy.