Do's and Don'ts management of

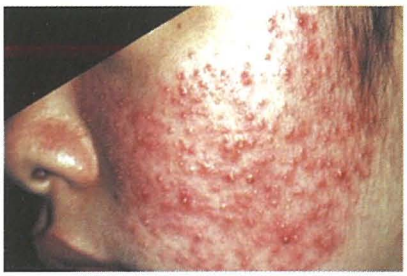
by **Lawrence Scerri**
MD FRCP (Lond & Glasg) CCST Derm (UK) FAAD
Chairman, Department of Dermatology,
Sir Paul Boffa Hospital

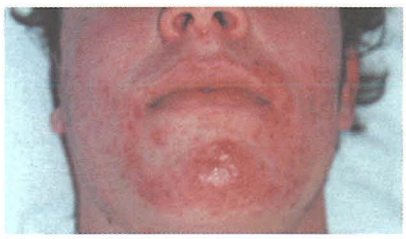
Acne vulgaris is the reason behind 10 to 25% of attendances in a general dermatology clinic in most dermatology clinical practices. It is therefore of utmost importance that clinicians dealing with acne patients are familiar with current recommendations for managing this common dermatosis, which may be associated with a significant negative psychosocial impact in a considerable number of cases.

Before embarking on drug treatment it pays to explain the prolonged albeit fluctuating course of acne and to stress the importance of long term management, not just to clear the acne but also to maintain remission. The clinician should stress the real risk of irreversible scarring that may result from inadequately treated inflammatory acne, as well as the fact that squeezing and picking inflammatory lesions is likely to increase this risk. Patients should be educated about aggravating factors particularly the avoidable ones namely greasy cosmetics and androgenic drugs. Conversely, one should actively strive to dispel popular myths, such as those in relation to the diet,[1] which only serve to add to the patients' misery.

When prescribing topical agents, particularly benzoyl peroxide or retinoids one should warn patients in advance about the likelihood of irritation which tends to wear off with continued use. Irritancy may be minimized by starting the acne agent at night-time on an alternate-day basis for the first two weeks or so, before switching to daily application. Co-prescribing a non-comedogenic moisturizer in the morning helps to counteract irritancy, and consequently enhance compliance. Topical treatment must be applied to the whole acne-prone site and not only to any existing spots at the time. This is done in order to treat early micro-comedones which are the precursors of visible acne lesions[2]. Hence the concept of 'spot prevention'. Patients should be warned about the usual slow onset of clinical response to both topical (3-6 weeks) as well as oral treatment (4-8 weeks).

Topical and oral antibiotic courses should generally be limited to 4-6 months, and given in combination with a topical non-antibiotic agent with a view to achieving clearance of acne. Long-term remission should be maintained with non-antibiotic agents so as to limit development of *Propionibacterium acnes* resistance[3]. Patients with severe seborrhoea





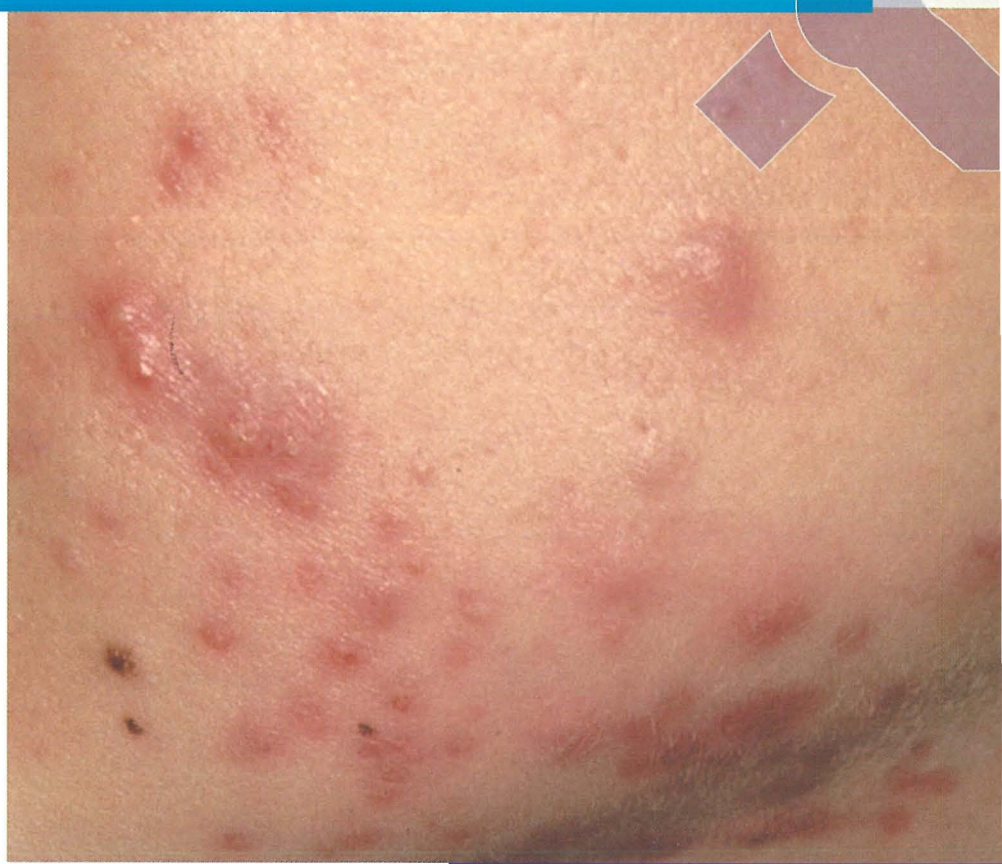
respond poorly to antibiotics, in which case one should opt for higher antibiotic doses (such as minocycline 200mg/day)[4], or the employment of sebum secretion-reducing agents such as cyproterone acetate, spironolactone or oral isotretinoin. Tetracycline is the antibiotic of choice for oral treatment. One must bear in mind that the various tetracyclines have been shown to exhibit similar clinical efficacy in trials, but lymecycline and doxycycline are more convenient than oxytetracycline, and safer than minocycline, although the latter is superior in patients with greasy skin due to its greater lipophilicity.

Hormonal therapy (oral contraceptive pill containing an anti-androgenic progestogen such as drospirenone or cyproterone acetate, which may be supplemented by additional cyproterone acetate or spironolactone for added anti-androgenic effect) is appropriate for females with acne who also require contraception and/or menstrual control, as well as for patients with polycystic ovary syndrome. This therapeutic option is also indicated in patients with a strong history of pre-menstrual acne flares as well as in those with persistent adult acne even when there is no evidence of underlying endocrinopathy[5]. It would be prudent to switch from a higher oestrogen-content pill to a lower oestrogen-content pill (such as Yasminelle) once acne is under control. One should not forget that the oral contraceptive pill (particularly with low oestrogen content) may show a negative interaction with oral tetracyclines running a risk of contraceptive failure. A family history of breast cancer is not an absolute contraindication for hormonal therapy since there is insufficient evidence to link this with an increased risk of breast cancer.

There is no need to investigate routinely for endocrinopathy in females. Most cases of 'hormonal acne' are due to increased local production of androgens in the pilosebaceous unit, which does not show up on blood investigation. On the other hand, a hormone profile should be requested in adult females with sudden onset of severe acne, female patients whose acne is resistant to conventional therapy, and patients with acne that is associated with irregular menstrual cycle or clinical signs of hyperandrogenism, especially hirsutism. Furthermore, delayed-onset congenital adrenal hyperplasia should be excluded in adult male and female patients with persistent severe acne.

In patients with moderate to severe acne the total cumulative dose of isotretinoin should be at least 120mg/kg in order to minimize post-treatment relapse[6]. However there is no added benefit when exceeding 150mg/kg. It is recommended that one opts for a lower dose regimen spread over 6-8 months rather than going for the full dose given over a 4 month period. This achieves the same end-result with less side-effects (particularly mucocutaneous dryness), and is hence better tolerated by most patients. Pharmacokinetic studies show that absorption of isotretinoin can be doubled when this is taken with meals. In order to minimize the risk of a severe inflammatory flare on starting oral isotretinoin in patients with abundant macrocomedones it is advisable to treat the comedonal lesions with light cautery prior to commencing the drug. Patients

in the acne



should be warned to avoid traumatic interventions such as wax depilation or skin peeling during the course of oral isotretinoin therapy due to the likelihood of severe reactions. Furthermore all necessary precautions must be taken to prevent pregnancy occurring during isotretinoin therapy and up to one month after completing the course of treatment as outlined in the current pregnancy prevention programme of the EMEA and FDA.

Severe inflammatory acne flares occurring during the initial phase of oral isotretinoin therapy may be effectively controlled with a reducing course of oral corticosteroid (starting at 0.5-0.75mg/kg) given over 3-4 weeks while at the same time continuing the isotretinoin, the dose of which being kept low initially and increased gradually. On the same note, it is advisable to co-prescribe a reducing course of oral corticosteroid together with an incremental oral isotretinoin regime right from the start in patients with severe inflammatory acne or acne conglobata. The same applies to patients with acne fulminans and pyoderma faciale although one should proceed more cautiously in such patients, giving the oral corticosteroid over a longer period and increasing the isotretinoin dose more slowly.

Although not absolutely indicated in otherwise young healthy patients, it might be prudent to carry out routine baseline liver function tests and lipid profile. Evidence to date shows that elevations in these tests occur in most patients but return to pre-treatment levels after stopping treatment[7]. There is no real need to routinely repeat these tests during the course of treatment except in high risk patients such as those suffering from diabetes or hyperlipidaemias. Oral tetracyclines should not be prescribed together with oral isotretinoin due to the increased risk of benign intracranial hypertension. Oral isotretinoin should not be prescribed in the presence of a clear history of suicidal depression. Furthermore it is advisable to withdraw isotretinoin should patients develop signs of depression during the course of treatment.

Patients with retentional acne may benefit from abrasive agents and scrubs in addition to topical retinoid therapy. However the former modalities should be avoided in the presence of an inflammatory component due to the likelihood of aggravation. Likewise facial saunas, heat applications and massage are best avoided as these are likely to induce inflammatory lesions. Blue light and photodynamic therapy are mainly of benefit in cases of mild to moderate acne.

Patients with acne excoriee having more inflamed lesions than excoriations are best treated with oral antibiotics, whereas the more difficult patients who tend to have mainly excoriations with minimal inflammatory lesions are best managed with psychoactive drugs and psychotherapeutic support. Potentially irritating topical treatments such as benzoyl peroxide and retinoids are best avoided in such patients. Patients with body dysmorphic disorder and acne need to be treated enthusiastically with more aggressive therapy such as high dose minocycline or oral isotretinoin with or without the addition of an antidepressant due to the significant risk of suicide[8]. Psychiatric referral should ideally be avoided since these patients tolerate psychiatrists very badly.

In conclusion, choice of therapy in patients with acne should not only be based on clinical indications but must also be influenced by consideration of potential risks, and the patient should be given the opportunity to make an informed decision.

References

1. Rosenberg WE, Kirk BS. Acne diet reconsidered. *Arch Dermatol* 1981; 117:193-5.

2. Gollnick H, Cunliffe WJ, Berson D et al. Management of acne. Report from a global alliance to improve outcomes in acne. *J Am Acad Dermatol* 2003; 49 (Suppl.):S1-37.

3. Eady EA. Bacterial resistance in acne. *J Invest Dermatol* 1997; 108:379.

4. Goulden V, Glass D, Cunliffe WJ. Safety of long term high dose minocycline in the treatment of acne. *Br J Dermatol* 1996; 134: 693-5.

5. van Vloten W, van Haselen CW, van Zuuren EJ. The effect of two combined oral contraceptives containing drospirenone or cyproterone acetate on acne and seborrhoea. *Cutis* 2002; 69:1-15.

6. Cunliffe WJ, Van de Kerkhof P, Caputo R et al. Roaccutane treatment guidelines: results of an international survey. *Dermatology* 1997; 194:351-7.

7. Altman RS, Altman LJ, Altman JS. A proposed set of new guidelines for routine blood tests during isotretinoin therapy for acne vulgaris. *Dermatology* 2002; 204:232-5.

8. Cotteril JA, Cunliff WJ. Suicide in dermatological patients. *Br J Dermatol* 1997; 137:246-50.