Management of acne in general practice

Laser treatment is the latest and most exciting addition to treatment of acne, writes David Buckley in a comprehensive overview of treatments

ACNE IS THE MOST COMMON skin problem seen by GPs, especially at this time of the year. Although 85% of teenagers get acne, only a small number of these will need help from their GPs. While most teenagers will grow out of their acne eventually, I have many patients who drag into their twenties, thirties or even into their forties with acne.

The diagnosis of acne in teenagers is usually straightforward, with papules, pustules and oily skin. However, in older patients acne can be confused with other pimply rashes on the face such as rosacea and peri-oral dermatitis. Careful clinical examination with a good magnifying light should reveal the cardinal features of acne which are open and closed comedones (black and whiteheads) and these are usually associated with oily skin.

The treatment for acne is normally simple and straightforward although it is surprising how often I see patients who have failed to respond to previous acne treatments because they have not been counselled properly. I usually spend 10 or 15 minutes with all new acne patients explaining the problem, demonstrating how to apply their creams and gels and giving them realistic expectations as to how long the acne treatment will take to work. There are various acne grading scales such as the Leeds Revised Acne Grading System, but I usually grade patients into mild, mild to moderate, moderate, moderate to severe and severe acne in the various locations such as the face, chest and back. Two other categories worth recording are whether the acne is nodular-cystic, or scarring.

It is important when deciding what treatment to use to take the patient’s feelings into consideration, since what might look like mild acne to the doctor may be severe acne in the patient’s eyes, and vice versa. Also, remember, you may be seeing the patient on a good day.

All patients with oily acne need a suitable wash or cleanser and I usually recommend products with 2% salicylic acid, although these can sometimes cause skin irritation and excessive dryness if not used properly. I usually ask women not to bother with toners on acne-prone skin and to avoid moisturisers completely as their skin is already too oily and using a moisturiser will ‘add fuel to the fire’. However, a lot of acne gels cause dryness of the skin so the patient has to be instructed to use enough but not too much. You want the patient to get their skin slightly dry but not scaly, red or sore. Make-up will help to conceal spots but should be oil-free, or non-comedogenic.

Although we know acne is hormonally driven, almost all teenagers (and their parents) will blame their diet. Diet has little or nothing to do with acne but I usually use the opportunity to instil the virtues of healthy eating habits and regular exercise when counselling patients with acne. Picking is bad news and patients must be encouraged to leave their spots alone, since scratching, picking or squeezing spots usually makes the spots worse and can leave marks or scars. However, I must admit that when I had acne myself I succumbed to the temptation of popping a ripe pointing yellow head (pustule) rather than leaving it staring back at me in the mirror for days. Another rescue remedy I heard of from Professor Kligman in the US was to apply benzoyl peroxidize frequently five or six times a day carefully to the inflamed spot, using a Q-tip to intensify the treatment.

The first-line treatment for acne is always topical therapies. Despite this I am amazed to find patients on oral antibiotic tablets or hormonal treatments for their acne without any topical treatments. This makes no sense and will invariably be unsuccessful, as the patient will relapse once the oral therapies are stopped. The choice of topical treatments depends on the type of acne you see. In patients with
Table 1

**Indications for Roaccutane**

- Severe nodular cystic acne
- Acne unresponsive to standard systemic and topical therapies
- Acne relapsing quickly after standard systemic and topical therapies
- Scarring acne
- Acne associated with severe psychological problems

Oily skin and a lot of comedones (non-inflamed lesions) a topical retinoid is helpful (Retin-A, Isotrex, Differin). If the patient has mainly inflamed lesions (papules and pustules) then benzoyl peroxide is the more appropriate. Many patients have both non-inflamed and inflamed lesions. In this situation I usually use a retinoid at night and benzoyl peroxide in the morning, which is an excellent combination, but patients have to be counselled on the correct use of these products as they can cause excessive dryness if not used properly.

I tend to avoid using topical antibiotics since antibiotic resistant strains of *P. acnes* are now a major concern.

Patients with more moderate or severe acne will usually need systemic treatments in addition to their topical therapies. Again, antibiotic resistance is becoming an ever-increasing problem, and oral tetracycline (oxytetracyclin, lymeycline, minocycline) seem to have the least resistance. The use of topical benzoyl peroxide combined with the oral antibiotic seems to reduce the incidence of antibiotic resistance. If the patient’s acne is bad enough to warrant systemic treatments such as oral antibiotics, then they need to take these antibiotics in the correct dose for at least three to six months. Tetracyclines cannot be used in children, or pregnant women, and work best when taken on an empty stomach. It is important to give the patient realistic expectations as to what to expect in the treatment. I usually tell clients to expect little or no improvement in the first month of treatment. They should have approximately 30% clearance of their acne after two months, and 95% clearance after six months. It is also important to explain that antibiotic tablets do not cure acne but merely get their acne into remission. Once they stop their tablets they should continue their topical treatments indefinitely until such time as they ’grow out’ of their acne’. If they stop everything after six months (eg. both the tablets and the topical agents) there is a very high risk of relapse.

In non-smoking women hormonal treatments such as Dianette can be useful especially if they also need a contraceptive, have menstrual problems, or hirsutism (check for polycystic ovarian syndrome). Dianette should be taken for at least six months and combined with good topical agents. Once the acne clears, I usually change the patient to regular skin preparations to use while on Roaccutane. Women should also have a negative pregnancy test before commencing treatment. I also recommend patients to avoid alcohol, or drink very little, while on Roaccutane, especially young men.

The latest and most exciting new treatment for acne is laser treatment. Low fluence pulses dye lasers (PDL) have been used for atrophic acne scarring for a number of years and anecdotal evidence suggests that long-term improvement in inflammatory acne can be seen after even one PDL treatment. The pulsed dye laser seems to stimulate cutaneous pro-collagen production and the specific wavelength (585nm) kills the porphyrin containing *Propionibacterium acnes*, a common cutaneous commensal which is responsible for the inflammatory lesions in acne patients. It is thought that the laser light might also alter the patient’s immunobiological responses to the bacterium.

Dr Tony Chu, consultant dermatologist in the Imperial College at Hammersmith Hospital in London, and an expert in acne treatment, published a seminal paper in the *Lancet* in 2003 showing that in a randomised double-blind controlled trial of pulse dye laser treatment for inflammatory acne using the N-Lite laser, acne severity improved substantially after only one treatment. The treatment was well tolerated by the patients without any analgesia and the rapidity of the response to the laser treatment contrasted with that of conventional treatment such as oral antibiotics, which often need six to eight weeks before benefits are seen. The improvement continued for at least 12 weeks in most patients. According to Dr Chu: “the pulse dye laser treatment is the biggest breakthrough in the treatment of acne vulgaris in 20 years”.

I have treated a number of patients with the N-Lite Pulse Dye Laser with encouraging results. Hopefully, over the next few years we will be able to manage all patients with acne regardless of severity without antibiotics (topical or oral) with the use of lasers and topical treatments. Roaccutane will still be needed for the most severely resistant cases.

David Buckley runs a dermatology and laser clinic in his practice in Tralee, Co Kerry

References on request