The new dermatology
Implications for the dermatologist and for dermatological training

MALCOLM W. GREAVES, MD, FRCP
Professor of Dermatology, St Thomas's Hospital, London

ABSTRACT — The advent of new drugs including ‘over the counter’ (OTC) drugs, the increasingly aged population with its special requirements for skin care, and environmental and occupational factors will affect the nature of future dermatological practice in developed countries. The role of sub-specialists is likely to increase, and the case for expansion of the dermatological consultant grade is debatable. Consultant training should place more emphasis on highly specialised training in specific areas, including occupational dermatoses, environmental dermatology, dermatopharmacology, dermatological surgery and dermato-oncology. A strategy for dermatological research in Europe needs to be established which is based upon fewer, larger groups of a multi-disciplinary character. Corporate support could well achieve this aim.

The last decade of the millennium is going to mark dramatic changes in the practice of dermatology in developed countries. If those involved in prevention diagnosis and treatment of skin disease are to continue to provide a service that is relevant to the altering needs of patients, and to make effective use of more elaborate techniques for diagnosis and treatment, then alterations in the extent and nature of their training will be required.

The pattern of skin disease in patients attending the average hospital outpatient dermatology clinic is changing, and the tempo of change will increase over the next ten years.

New systemic drugs will drastically alter the pattern of referrals to hospital skin clinics. For example, the retinoids, although currently available only on hospital prescription, potentially enable all but the more severe nodulocystic acne and psoriasis patients to be treated without the need for hospital referral, and the advent of the minimal sedation antihistamines has already caused some of the physical urticarias to be almost a rarity in our own urticaria national referral centre. Some disorders, previously almost untreatable, respond dramatically to cyclosporin, including severe psoriasis and pyoderma gangrenosum [1]. Although this drug has the drawback of nephrotoxicity, congeners are already appearing with an improved therapeutic index. Much of the routine care of patients with skin disease is in practice already being done by non-specialist clinical assistants, and the role of sub-specialists is likely to increase, especially if the relevant recommendations of the government white paper are enacted [2]. There will be little or no reason for any but the more diagnostically obscure or therapeutically more unresponsive patients to warrant hospital referral.

The implication for training in dermatology is that, rather than expanding the consultant grade, more emphasis on highly specialised training within dermatology will be required, including such topics as occupational dermatitis, contact allergy, photodermatoses, clinical dermatopharmacology, dermatological surgery and dermato-oncology. These factors and the ‘Europeanisation’ of specialist medicine scheduled for the 1990s will provide an irresistible impetus to the establishment of an exit examination as a prerequisite for specialist accreditation in dermatology [3].

An ageing population

Because of the progressively increasing proportion of the population in the over-60s category, skin problems consequent upon ageing, and therefore partly attributable to sun exposure, are going to represent an expanding burden in the skin clinic. Indeed, these categories will tend to replace the diminishing referrals of a more traditional nature mentioned above, and by the year 2000 many of us will confront a patient population of which well over 50% will be aged 60 or more. Dermatologists and their nursing colleagues should respond positively and welcome this change in emphasis and adapt their practices accordingly.

There is a wide range of interesting skin problems consequent upon ageing which represents a challenge to the dermatologist. The more important include: dryness, itching, pigmen tryal changes including freckles, wrinkling, telangiectasia, skin cancers and alopecia. Some of these have previously been considered barely worthy of dermatological attention, but the increase in average life expectancy, affluence and leisure time, including earlier retirement, create a

Address for correspondence: Professor Malcolm Greaves, Institute of Dermatology, St Thomas's Hospital, London SE1 7EH
demand for an improved quality of life in the declining years which should not be ignored. Attention to these mounting problems is surely better in dermatological rather than cosmetic hands, and should provide a satisfying and stimulating new avenue of practice to explore. Specific techniques include argon laser and CO₂ laser treatment for naevi and skin tumours, excisional procedures including micrographic surgery for basal cell carcinomas, cryotherapy for solar keratoses and warts, and a more positive therapeutic approach to melanoma (which is all too often off-loaded to our surgical colleagues). The recent appointment in London of a consultant/senior lecturer in dermatology with a recognised special interest in dermatological surgery is a milestone in this field. Other important areas include improved emollient therapy for dryness and itching, and preventive measures, especially for photo-ageing. Dermatologists should also prepare themselves to act as information sources for prevention of environmental dermatoses.

Environmental and occupational factors

The increase in melanoma and non-melanoma skin cancer is only partly due to increased longevity. Increased exposure to the sun’s rays due to reduction of the ozone layer and changes in leisure are also major factors [4].

The dermatologist and the dermatological nurse are in the front line; both must sharpen their diagnostic acumen and increase the scope of the diagnostic and therapeutic techniques they provide. They should also make use of the media to promote awareness of the risk factors, and encourage early diagnosis. Although there is nothing to suggest that occupational dermatoses are becoming more prevalent, the economic costs to employer, employee and the state are ever increasing. The dermatologist and the nurse have a mainly preventive responsibility in identifying those at risk, including atopic subjects, and advising employers and employees on how to minimise risks to the skin.

The opportunistic infections, including those from yeasts and bacterial and virus infections consequent upon HIV infection, are well known. Less well appreciated is the fact that prolonged therapeutic immunosuppression, eg in renal transplant patients, carries a similar risk [5]. Opportunistic infections include herpes simplex, candidiasis, dermatophyte infections, virus warts and a variety of pyococcal and other bacterial infections. It is important to realise that the clinical manifestations of these infections may be effectively masked by the immunosuppressive steroids or cytostatic drugs that are responsible for their appearance. They may be essentially ‘incognito’ infections [6] and therefore all the more dangerous; they are sure to represent a mounting problem as transplant surgery burgeons in the 1990s.

Application of molecular biological methods, including (where the gene defect has been identified) use of DNA probes will provide necessary molecular markers for genodermatoses, eg ichthyoses and the mechano-bullous diseases (epidermolysis bullosa), thus facilitating development of prenatal diagnosis, including chorionic villus sampling [7], in the first few weeks of pregnancy. This technique will increasingly be used to provide accurate diagnostic information upon which genetic counselling to the pregnant woman can be based, although correction of the underlying molecular defect remains a much more distant goal.

Drugs for the future: ‘over the counter’ (OTC) drugs and designer drugs

The impact of new drugs on patterns of referral has already been mentioned. Additional major factors include the increasing use of OTC drugs and designer drugs. Irrespective of political factors, economic constraints dictate a shift of the cost of drugs from the exchequer to the consumer. This has prompted licensing authorities to grant licences to certain drugs for OTC sales without prescription [8]. The forerunner of this movement has been 1% hydrocortisone, and it is likely that a wide range of topical and systemic drugs for dermatological use, including more potent topical steroids and antibiotics, will soon be available OTC without prescription. Dermatologists and nurses may expect a consequent fall-off in the number of referrals of more routine and banal problems. There may also be an increase in the development of adverse effects from the inappropriate domestic use of the drugs but surely the effect of this has been greatly exaggerated.

Designer drugs are drugs with a molecular structure specifically designed by techniques of molecular engineering to fulfil a specific agonist role. Such drugs are less likely to show adverse effects because that part of the molecule not involved in the desired pharmacological effect can be rendered toxicologically relatively innocuous [9]. Such ‘clean’ drugs with a favourable therapeutic index will be safe to use in domiciliary practice and will further reduce the necessity for hospital referral.

Research

The trend towards super-specialisation within dermatology must be founded upon a coherent strategy for skin research. Dermatological research in Great Britain and on the Continent, though often individually meritorious, is generally on too small a scale to benefit from rapid contemporary developments in biomedical sciences. National and European grant-awarding bodies and specialist associations must use their influence to pool and integrate resources nationally and internationally to form centres of research excellence. If this can be expedited by corporate support, so much the better. The recent announcement of the $85 million cutaneous biology research centre funded by Shiseido under the auspices of the dermatology department at Harvard is a welcome development which shows what can be done and which might be emulated on this side of the Atlantic.
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