

DERMATOLOGY – MORE PRACTICE THAN BENCH

L Naysmith, SpR Dermatology, Royal Infirmary of Edinburgh, Little France, Edinburgh, Scotland

The aim of the day's proceedings was implicit in the title: the subject matter was to not to be confined to the usual suspects – esoteric signalling pathways and genome scans – but instead, to focus on advance that is changing clinical practice. Having said this, the meeting's content was broad, ranging from the management of diseases that every GP sees everyday (atopic dermatitis, psoriasis) through to the molecular genetics of blistering disorders and a brief treatise on self-organising systems and waiting lists! In what follows, rather than repeat what was said (available on CD-ROM) I will give a selective account of the day focusing on what seemed to me novel and likely to influence practice over the next decade.

SKIN CANCER, SURGERY AND LIGHT

The most striking change in dermatology over the last quarter century has been the change in case mix seen by dermatologists. Whereas in former times rashes made up over 90% of new referrals, 'lumps and bumps, query skin cancer?' now account for over half of new referrals. This change can be accounted for in part by an aging population and a general increased awareness of therapy and cosmesis, but also reflects real increases in age-specific incidence of all the major tumour types.

Dr Val Doherty, of the Edinburgh Royal Infirmary Dermatology department and the Scottish Melanoma Group, reviewed the epidemiology of melanoma in Scotland. The incidence of melanoma, but not its mortality, has risen continuously and at the same time the average thickness of the tumour – the best prognostic indicator – has decreased. This is a pattern seen in other world populations, notably Australia, and a pattern not unfamiliar in screening for the early detection for other cancers. This has meant a large increase in work as establishing prognosis relies on excision. Dr Doherty reminded us that there has been little advance in the treatment of metastatic disease and efforts continue to determine the role of sentinel biopsy in prognosis and determining therapy. Some advance has occurred in moderating excessive surgical zeal for wide margins, with randomised controlled trials showing that more modest excisions are just as effective,¹ a finding that has accompanied the service change in the provision of melanoma surgery from plastic surgery to dermatology.

The issue of surgery versus non-surgical treatments of therapy was evident in the talks by Dr Colin Morton,

Falkirk, on non-surgical treatment of non-melanoma skin cancer, and Dr Neil Walker, Oxford, on the place of dermatology as a medical specialty.

In recent years a whole range of new pharmacotherapeutic agents have become available for the treatment of non-melanoma skin cancer. These include the use of photodynamic therapy (not to be confused with phototherapy), which involves the use of externally applied photosensitising porphyrins and visible light, through to the use of cyclooxygenase inhibitors and immunomodulators such as imiquimod. These modalities obviate the need for surgery for some malignant and pre-malignant lesions, and their place in everyday clinical practice is becoming established. Importantly, some of these therapies may be suitable for widespread adoption in primary care, assuming the clinical diagnosis is correct and expert dermatopathology is available when necessary.

The relation between dermatology and internal medicine is an interesting one. Historically, dermatology started as a surgical specialty, and in much of the world these origins have reasserted themselves with vigour in recent years. There are other differences that readers in the English speaking world may be unfamiliar with. In mainland Europe, dermatology includes genitourinary medicine and HIV, phlebology and andrology, and, to varying degrees, the management of burns. The great recent fillip to surgical skills in dermatology has, however, come from the US, where over half a dermatologist's workload may be considered cosmetic. The emphasis on cosmetic procedures is, for many UK trainees, a downside but, on the positive side, the increase in surgical expertise has filtered through into mainstream dermatology. For instance, the practice of Mohs' micrographic surgery is now a central component of virtually all European dermatology centres (sadly not in Scotland however), allowing, so its enthusiasts claim, precise control of tumour excision margins and saving unnecessary and inappropriately wide excisions on sites such as the face. From a trainee with a surgical interest perspective, one of the issues highlighted by these sessions was how medical advancement does not respect national borders, and how for many of us training will need to encompass visits to other centres in Europe or the US to learn new techniques.

ITCHING FOR EXPLANATIONS

Professors John McGrath (Guy's, King's and St Thomas'

SYMPOSIUM REPORTS

Medical School, London) and Jeffrey Bernhard (University of Massachusetts, US), gave talks illustrating different aspects of dermatology.

Professor McGrath outlined with elegance the considerable advance in our understanding of how the epidermis is 'stuck together' by a range of molecules involved in desmosomes, hemidesmosomes and intermediate filaments. Mendelian disorders of the skin are common, accounting for about one-third of all Mendelian disorders of Man, and the combination of detailed diagnostic skills and facility with molecular genetics has meant that dermatology clinical science has led to major insights in cell biology over the last decade. Thus, we now have a near unified picture of the molecular causes of blistering, either genetic or acquired, the latter often due to targeting by the immune system of the same molecules that are mutated in the Mendelian disorders. The advances outlined by Professor McGrath, offer not only genetic counselling for a range of frequently lethal and disfiguring disorders but also allow a much more rational basis for classification and therapy.

By contrast Professor Bernhard, giving the Sydney Watson Smith lecture, summarised what we know about itch, along the way pointing out that the need for new syndrome identification is as necessary now as it was in the 19th century. He emphasised the role of the nervous system in explaining itch symptomatology by reference to a number of syndromes such as *notalgia paresthetica* (a condition where itch and/or changed sensation arises on the infrascapular), and *brachioradial pruritus* (a condition where itch, burning and/or changed sensation arises on the dorsolateral skin of the arms), that he felt could best be explained as nerve entrapment syndromes. He also brought some of us up-to-date on modern thinking about itch fibres. For too long debated, the issue of whether specific itch fibres exist seems to have been resolved: specific slow conduction fibres, distinct from pain, with large sensory fields and usually mechanically insensitive, do exist. Itch is no longer a form of pain.

OF RASHES, POWER LAWS AND AFFAIRS OF THE HEART

Much of the day was given over to discussion of the diagnosis and management of the most common dermatological disorders, fungal infections (Dr Dai Roberts, Glasgow), atopic dermatitis in children (Dr Celia Moss, Birmingham) and psoriasis (Dr Richard Weller, University of Edinburgh). This emphasis seemed well deserved, as these disorders account for over one-third of referrals to secondary care and constitute the majority of dermatological consultations in primary care. One cannot help wondering, given that these consultations are more common than those for cardiovascular disease, respiratory disease, or

neurological disorders in primary care, why undergraduate and postgraduate training in dermatology is so hard to come by.

This theme was taken up in the final session, billed as a debate about romance (professionally speaking of course) between primary care and dermatologists in secondary care. Whereas Dr Tom Poyner, a GP with a UK-wide reputation in primary care dermatology, brought to bear a qualitative research methodology to the theme, Professor Colin Munro (University of Glasgow), used a perspective that owed much to economics and decided to unpick many of the truisms surrounding waiting lists, supply and demand, and other policy and redesign issues. Starting by reminding the audience of the work of Pareto (in this context meaning that a minority of GPs will produce the majority of referrals), he took us on a tour of recent work on why dermatology waiting lists exhibit some of the properties of self-regulating systems. In this way, according to him and others, waiting lists have much in common with sand pile avalanches, forest fires, and a variety of other biological and sociological systems that obey power law characteristics. Most striking was a graph showing the almost linear relation between the number of consultants and the number of referrals in dermatology across Scotland. Rather than the naive belief that supply rises to meet demand, it seems demand strives to match supply.

CONCLUSIONS

The overall theme of the day, in line with the title, was the importance of education and generation of knowledge in how to manage skin diseases, both for practitioner and patient. The available therapies for skin diseases have changed beyond all recognition in the last 20 years. The issue about how you compare the ever increasing number of therapies just becomes ever more acute. One left the day exhilarated at the pace of advance but also with a sense of unease at the difficulty of translating genuine advance into affordable care in the NHS.

ACKNOWLEDGMENTS

I am grateful to Professor Jonathan Rees, University of Edinburgh, for advice and comments, and in particular for explaining to me the significance of power law distributions and scale free networks.

REFERENCES

- 1 Scottish Intercollegiate Guidelines Network. *Cutaneous melanoma. Guideline 72*. Edinburgh: SIGN; 2003.