Correspondence

Laboratory identification of *Streptococcus milleri*

The paper by Brogen *et al* highlights some of the problems encountered in the laboratory identification of *Streptococcus milleri*.¹ Their conclusion that routine biochemical speciation of clinically significant streptococci should be a minimum standard for the identification of *S milleri* could be open to misinterpretation. As a result, diagnostic laboratories may increase their use of costly commercial streptococcal identification kits such as API 20 Strep, Rapid ID 32 Strep (BioMérieux) or BBL Crystal Gram Positive ID Kit (Becton Dickinson) when more simple and cost-effective identification protocols exist.²

The authors state that Lancefield grouping is of little help in recognising possible *S milleri* group cultures.¹ This is because only a quarter of *S milleri* isolates are thought to possess Lancefield group antigens A, C, F or G.³ However, their study of clinically significant strains indicated that only 30 of 87 (34%) strains failed to group.¹ Hence Lancefield grouping does have a useful diagnostic role. As expected, group F was the most common Lancefield antigen detected (47%), which is indicative of *S milleri*. Group C and G *S milleri* can be differentiated rapidly and cheaply from other group C and G streptococci by their inability to degrade β -D-glucuronide.⁴ Group A *S milleri* can be distinguished from *Streptococcus pyogenes* by its resistance to bacitracin. *S milleri* possessing group B antigen has not been described.³

The caramel smell of *S milleri* in culture is a distinctive but variable feature making it unsuitable as a screening test. However, routine sulphonamide testing is useful. Together with enterococci, *S milleri* is uniformly resistant to sulphonamides while other streptococci show variable sensitivity. This property can be used in the preparation of selective media for routine clinical use.⁵

In our experience, clinically significant streptococci should be first identified by a combination of colonial appearance and morphology, haemolysis on blood agar, Gram stain, catalase reaction, Lancefield grouping, optochin, bacitracin and sulphonamide sensitivity. Sulphonamide resistant groups A, C, and G streptococci can be differentiated by bacitracin sensitivity and β -D-glucuronide activity, respectively. Only optochin resistant non-groupable streptococci, which are also sulphonamide resistant, need be biochemically tested to identify *S milleri*.

The taxonomic position of the *S milleri* group remains questionable, as it should strictly be referred to as *Streptococcus anginosus*. Non-haemolytic strains have also been named *Streptococcus intermedius* or *Streptococcus constellatus*, depending on their ability to ferment lactose.³ Nevertheless, many British laboratories continue to report *S milleri* as it remains a clinically useful term.

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- 1 Brogen O, Malone J, Fox C, *et al*. Lancefield grouping and smell of caramel for presumptive identification and assessment of pathogenicity in the *Streptococcus milleri* group. *J Clin Pathol* 1997;50:332-5.
- 2 Ruoff KL, Ferraro MJ. Presumptive identification of "Streptococcus milleri" in 5h. *J Clin Microbiol* 1986;24:495-7.
- 3 Colman G. Streptococcus and lactobacillus. In: Parker MT, Collier LH, eds. *Topley and Wilson's principles of bacteriology, virology and immunology*. 8th ed. London: Edward Arnold, 1990:138-9.
- 4 O'Neill WA, Cooke RPD. Rapid identification of *Streptococcus milleri* from other β haemolytic group A, C and G streptococci by simple screening tests. *Br J Biomed Sci* 1994;51:1-4.
- 5 Tillotson GS, Ganguli LA. Antibiotic susceptibilities of clinical strains of *Streptococcus milleri* and related streptococci. *J Antimicrob Chemother* 1984;14:557-8.

The dysplastic naevus

I am pleased to be able to agree almost entirely with Professor Mooi's leader on the dysplastic naevus.¹ His summary of the role of the pathologist with such lesions and his conclusions seem to be particularly appropriate. He rightly emphasises the importance of the overall clinical phenotype in the recognition of melanoma risk, and points out the inaccuracies in recognition of macroscopic (clinical) and microscopic features.

Having come to these conclusions it is slightly surprising that they are preceded by such a detailed description of the pathology of an entity that he then argues is less important to recognise than the presence of melanoma. This in turn begs the question "where is the cut off point between dysplasia and melanoma"; a difficulty that we have argued is entirely avoidable if the term melanocytic intraepithelial neoplasia is used.^{2,3} The word dysplasia is a very valuable descriptive term but the concept of "dysplastic naevus" is less useful than that of its associated syndrome.

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- 1 Mooi, WJ. The dysplastic naevus. *J Clin Pathol* 1997;50:711-15.
- 2 Cook MG, Clarke TJ, Humphreys S, *et al*. The evaluation of diagnostic and prognostic criteria and the terminology of thin cutaneous malignant melanoma by the CRC Melanoma Pathology Panel. *Histopathology* 1996;68:497-512.
- 3 Cook MG, Clarke TJ, Humphreys S, *et al*. CRC Melanoma Panel. A nationwide survey of observer variation in the diagnosis of thin cutaneous malignant melanoma including the MIN terminology. *J Clin Pathol* 1997;50:202-5.

Professor Mooi comments

I am grateful for Dr Cook's comments on my recent leader on the dysplastic naevus. I am pleased to note that Dr Cook and I agree on the main issues regarding the clinical relevance of dysplastic naevus and its distinction from thin melanoma. I do feel, however, that there remains a valid case in favour of the use of dysplastic naevus as an entity and I feel forced to admit that I have some reservations about the term MIN (melanocytic intraepithelial neoplasia).

First, most of the melanocytic lesions under discussion involve not only the epithelial but also the superficial dermal region; these would not qualify as MIN, which are by definition intraepithelial. As a consequence, if one dropped the term dysplastic naevus, one

would be forced to introduce yet another new term, other than MIN, to define these lesions. I do not see that there is a need to do this, as the term dysplastic naevus is available and has been defined in clinical and histological terms with an acceptable degree of precision.

Second, the term neoplasia in MIN would need a qualifier to indicate the presence of nuclear atypia and architectural irregularity beyond what is seen in common acquired naevi; otherwise, all simple lentiginous and junctional naevi (being intraepithelial melanocytic neoplastic lesions) would qualify as MIN. If one added "atypical", the resulting "AMIN" would still be, in my view, less than optimal (quite apart from the untoward connotations of such an acronym).

Finally, even if melanoma risk depends more on clinical phenotype than on the histology of an individual lesion, this does not mean that there is no need to define, to the best of our ability, the marker lesion of the dysplastic naevus syndrome in precise histological terms. The fact that the exclusion of melanoma is more important clinically than the assessment of the naevus type (dysplastic or not) does not imply that there is no reason to make that (less important) distinction. Indeed, the recognition of the dysplastic naevus aids in the exclusion of melanoma, especially because it shares some of the clinical and histological features of melanoma.

Because of these considerations, I feel that the term dysplastic naevus remains the best choice. In my view, the histological recognition of these lesions is possible and desirable, even though its premalignant potential has been overestimated.

Book reviews

Medical Microbiology. A Guide to Microbial Infections: Pathogenesis, Immunity, Laboratory Diagnosis and Control. D Greenwood, R Slack, J Peutherer, eds. (£30.00.) Churchill Livingstone, 1997. ISBN 0 4430 5454 1.

This is the companion volume to *Practical Medical Microbiology*, and both of these books derived from the original, single Mackie and McCartney text, which has graced the shelves of most microbiologists in the UK for the past seven decades. As such, it is aimed at the same readership, particularly medical students and trainee medical microbiologists.

The 48 authors are mostly from the UK but also include some from the USA and Canada. The book is divided into six sections: microbial biology, infection and immunity, bacterial pathogens and associated diseases, viral pathogens and associated diseases, fungal pathogens and parasitic infections, and diagnosis, treatment and control of infection.

The first section is an excellent introduction for students and an update for post-graduates. There is, of necessity, some overlap with the sister text, but this book concentrates on basic science and clinical aspects of infection, leaving the important laboratory aspects to the companion volume. There are some excellent chapters within

each section and most are up to date—for example, new variant CJD is well covered and there is extensive information on all aspects of *E. coli* O157. However, there are occasional omissions, such as a discussion of the Th1/Th2 concept in the section on infection and immunity.

The book has a number of diagrams and black and white photographs, as well as a page of colour plates in the protozoan chapter. However, one would expect a more extensive use of diagrams and tables in a modern textbook, particularly one aimed at an undergraduate audience.

In the increasingly crowded marketplace for general microbiology textbooks this is very good value for money. In conjunction with the other Mackie and McCartney volume there is more than enough for medical students, biomedical scientists, and others training in the field of infection and microbiology.

C KIBBLER

Medical Microbiology: Lecture Notes on. T Elliott, M Hastings, U Desselberger. Blackwell Science, 1997. ISBN 0 6320 2446 1.

What do medical students look for in a textbook of medical microbiology? From a brief survey of an admittedly small sample it seems they want all the essential facts (but no more), presented on as few pages as possible, as clearly as possible, for the least cost. So does this third edition of *Lecture Notes*, first published in 1967, continue to fulfill this need?

The text is appropriately concise and, as the authors state in their preface, is designed to highlight major points and important factors. The layout is attractive and certainly enhances the book's readability. There is good use of graphics, although the appearance of the same micrograph of a flagellum at the beginning of every chapter (including ones on non-flagellate organisms such as the streptococci) is a little curious.

In keeping with a number of other textbooks of microbiology, this book is divided into two sections dealing with the organisms and then with infections. The cover is comprehensive, although there are, inevitably, some omissions, such as the absence of any discussion of β lactamase inhibitors in the antibiotic chapter.

Overall, this book provides a very useful set of lecture notes for students, and good competition for others aimed at the same readership, such as *Short Notes on Medical Microbiology* by Sleight and Timbury. It is highly recommended.

C KIBBLER

Skin Pathology, 2nd edition. D Weedon. (Pp 950; £170.00.) Churchill Livingstone, 1997. ISBN 0 4430 5575 0.

This book is a second edition of the volume that David Weedon contributed to, the third edition of Symmers' *Systemic Pathology*. That book was widely recognised as one of the most comprehensive and useful accounts of dermatopathology available, becoming in effect the dermatopathologist's book of dermatopathology. The new book is published in its own right and corrects some of the previous deficiencies. Specifically this book is illustrated throughout in colour; this is a sub-

stantial improvement. The new figures are well chosen and make their points clearly and well.

The text has been brought up to date. It is organised into chapters that deal with each of the major reaction patterns with respect to inflammatory conditions. The descriptions of tumours are divided along conventional lines. A new development is the inclusion of a very useful introduction to reaction patterns with an accompanying tabulation of conditions to be considered in differential diagnosis. This is followed by an illustrated trip through many of the diagnostic clues that are an essential part of the tool kit needed for diagnostic practice. The book is also very well referenced, giving directions to further reading, especially when dealing with "small print" conditions. The references have been brought well up to date.

I have had the book by my microscope for several weeks and can confirm its usefulness in day to day practice. The new Weedon is a substantial achievement. Largely the work of a single author it brings a uniformly high level of information to all areas. Anyone who works in dermatopathology will want to get a copy without delay.

N KIRKHAM

Current Clinical Topics in Infectious Diseases, vol 17. J S Remington, M N Swartz, eds. (£59.50.) Blackwell Science, 1997. ISBN 0 8654 2575 2.

Current Clinical Topics in Infectious Diseases is the 17th volume of a series that is published annually. This volume comprises 15 individual contributions on a wide variety of topics: new or emerging pathogens, such as microsporidia and bartonella infections; clinical syndromes, such as non-tropical pyomyositis; diagnostic modalities, such as radionuclide imaging of infection in soft tissue and bone; and therapeutic considerations, including reviews on once daily aminoglycoside dosing and oral cephalosporins for children. Unusual topics not often found in texts about infection include an extremely useful and practical update on factitious fever, and a very comprehensive review on the association between alcohol and infection.

Although the majority of the authors are from the United States, and some of the contributions are slanted towards a North American readership, they are all clear, well written, and have comprehensive and up to date references. A number of the chapters, notably those on pyomyositis, imaging of infection, and uncommon gastrointestinal protozoa, are accompanied by excellent illustrations. Somewhat of a disappointment was the chapter on new fungal pathogens by Gerald Bodey. Although an excellent text for reference, I found the details of each unusual fungal infection somewhat unreadable and disappointingly devoid of the interesting clinical and microbiological illustrations that sometimes accompany such texts.

At £59.50, this would be an excellent addition to any library and contains something of interest to anyone involved in the management of patients with infection.

B A OPPENHEIM

In-situ PCR Techniques. O Bagasra, J Hansen. (£32.50.) John Wiley & Sons Ltd, 1997. ISBN 0 4711 5946 8.

Polymerase chain reaction (PCR) has played a vital role in many areas of research in biology and medicine, but it does not allow for a direct correlation between the molecular analysis and the cytopathology and histopathology of the sample. However, in situ gene amplification techniques that allow the detection of amplified DNA and cDNA in intact cells have been available for several years, but the procedures remain cumbersome and difficult to reproduce with many potential variables.

In-situ PCR Techniques addresses this problem with comprehensive protocols and practical advice, where each procedure has been tested and validated for its sensitivity, precision, and reproducibility. The book, which is the authors' own practical experience, begins with a review of the in situ PCR techniques, and continues with step by step protocols of the techniques. Topics covered include optimisation of annealing temperatures for specific primers; preparation of glass slides and tissues; selection of DNA and RNA targets; combination of immunohistochemistry and in situ PCR amplification; specific applications of the techniques; hybridisation reaction; validation and controls.

Clearly a lot of thought and a great deal of work have been put into writing this book, which I found easy to follow and immensely useful. Overall, this book will be an invaluable practical guide to the experienced researcher as well as to the novice investigator in the field of molecular pathology.

M NAASE

Haematology: An Illustrated Colour Text. M R Howard, P J Hamilton. (£15.95.) Churchill Livingstone, 1997. ISBN 0 4430 5276 x.

I immediately liked this book and then spent some time working out exactly why. The format and layout are very attractive, and the presentation of the main points of each chapter in bullet form works well. The structure of the book is logical and the emphasis on fundamental clinical skills is very pleasing.

Throughout the book, the style of writing remains punchy and clear, and while the content is, of necessity, quite densely packaged (this is a short book) nowhere does reading become a chore. In some sections, such as recent advances in investigation, I thought I could detect a disparity between the spare simple style and the amount of knowledge the reader is assumed to have, but on the whole the text is very accessible.

The arrangement of subjects makes sense, although grouping electrophoresis and flow cytometry with coagulation seemed a little arbitrary. Limiting each chapter to two pages has imposed great discipline on the authors and they are to be congratulated.

This book relies heavily on visual information, and the clinical photographs and diagrams are excellent. The same cannot be said for the photomicrographs, and a proportion of them were too dark and really quite difficult to make out.

Where clinical management is outlined, it is either extremely sensible and correct or the authors share my own prejudices and opinions.

The book is bang up to date with accurate information on thrombophilia and the REAL lymphoma classification. It is well indexed

and sensibly priced and will certainly find a place in our unit's library. This is a book I wish had been available 30 years ago, and I cannot imagine a better introduction to the subject for medical students, laboratory workers, and specialist nurses.

D W GORST

Organelles in Tumor Diagnosis: An Ultrastructural Atlas. B Eyden. Igaku-Shoin, 1997. ISBN 0 8964 0311 4.

This illustrative atlas of cell ultrastructure is directed primarily towards histopathologists in training and those interested in diagnostic electron microscopy. It is intended as an appropriate starting point in organelle recognition and diagnostic interpretation. In 30 short chapters, including a brief introduction and a review of the extracellular matrix, the book illustrates and describes the important characteristics of some 30 cellular features occurring in normal and pathological conditions. It also offers clear guidelines on the use of a standard nomenclature.

Any atlas relies heavily on the quality of the illustrations and the author has chosen wisely to supplement his own collection of electron micrographs with those from other microscopists. However, as the author himself states, not all cell types are covered, which is perhaps more a reflection of the author's experience and interests than a judgment that what has been omitted is less important. The information provided is broadly comparable to that offered by many other atlases and textbooks.

A few minor criticisms can be made—for example, in reality microtubules and lysosomes are insufficiently represented in neoplastic cells to offer any useful diagnostic contribution to the identification of oligodendrogliomas, despite what is stated in table 1. The references in the text to figures 8D and E have been transposed, although the caption reads correctly.

This book is very appealing, not least for its attractive layout, concise text, and high quality illustrations. It is these qualities that may persuade the prospective buyer to purchase this volume rather than any of the other basic ultrastructural atlases currently available, such as the recently published *Handbook of Diagnostic Electron Microscopy for Pathologists in Training*, also published by Igaku-Shoin.

C H S CAMERON

P G TONER

Reporting Histopathological Sections. P Domizio, D Lowe, eds. Chapman and Hall Medical, 1997. ISBN 0 4124 3040 1.

Writing a concise, complete, and clinically relevant histopathology report is as much an art as a science. This book aims to help the

pathologist decide what to include in a report on microscopic specimens and what to leave out, thereby offering a standard set of clear and relevant information to the report reader. It is aimed largely at junior trainees, but also offers guidance to the more senior pathologist dealing with an unfamiliar specimen.

Protocols appear to be mandatory for most things pathologists do these days, and many departments will have produced reporting manuals for junior staff. This book offers a good substitute, but it does not include guidelines for handling macroscopic specimens. Common sense is required in following the protocols, as some chapters offer either an enormous checklist of the entire pathology of the tissue in question, or a mixture of what should be obvious (for example, "the presence of malignancy should be commented on"), and details that may not have been established to be of prognostic significance. Fortunately the specimen reports are largely well written, to the point, and include only relevant negatives.

Although the book claims to be of use to house officers and trainee clinicians, listing which clinical details should be offered for each specimen, a simple "include all relevant information" would perhaps get the message across more succinctly.

D ROSKELL

Notices

British division of the International Academy of Pathology meetings

Symposium on neoplastic skin disease

8 and 9 May 1998, Nijmegen, the Netherlands

International congress

18–23 October 1998, Nice, France

Symposium on breast pathology

27 and 28 November 1998, London, UK

For further information, please contact the British Division of the International Academy of Pathology, PO Box 73, Westbury on Trym, Bristol BS9 1RY, UK; tel: +(0)117 907 7940; fax: +(0)117 907 7941.

Postgraduate course in urological surgical pathology

1–3 May 1998

Harvard Medical School, Boston, Massachusetts, USA

The department of pathology, Massachusetts General Hospital, Harvard Medical School will present a three day postgraduate course in urological surgical pathology, which aims to provide a comprehensive review with special attention to recent advances and newly recognised entities.

Course has category I accreditation for 23 hours CME credits by the American Medical Association. Course fee is US\$575 (residents and fellows US\$425). For further information, please contact the Department of Continuing Medical Education, Harvard Medical School, PO Box 825, Boston, MA 02115, USA; tel: +617 432 0195; fax: +617 432 1562.

Haematology courses

St Mary's Hospital, London, UK

25 and 26 March 1998

A two day course in haematology morphology, including lectures and work at individual microscopes. The course is suitable for updating career post holders in haematology and for trainees in haematology. CME approval applied for 6 and 7 credits.

Only 40 places available; cost is £130 including lunch.

27 March 1998

One day course in histopathology of bone marrow including lectures and work at individual microscopes. The course is suitable for updating career post holders and trainees in haematology and histopathology. CME approval applied for 7 credits.

Cost is £85 including lunch.

Those wishing to participate in either of these courses should apply in writing only enclosing a cheque (made payable to Imperial College) to: Miss Jenny Guy, Postgraduate Course Organiser, Postgraduate Medical Centre, 2nd Floor, Mint Wing, St Mary's Hospital, London W2 1NY, UK.