Measurement techniques for melanoma: a statistical comparison

We write in support of the paper by Calder, Campbell, and Plastow.[1] We have advocated the use of the Vernier scale on grounds of its availability, low cost, and ease of use.[2] It was therefore pleasing to see that Vernier's invention also provides extremely good reproducibility when compared with the eyepiece graticule or projection image analysis.

One thing the authors omit is the limit of accuracy of the standard stage Vernier scale. This often has 10 Vernier divisions equal to 9 mm on the fixed scale. The accuracy limit is the difference between one division on each scale: 1·0–0·9 = 0·1 mm.[3] If greater accuracy were required it would be easy to replace the Vernier scales for one with smaller divisions, such as one with 25 divisions equal to 24 on the fixed scale. (Electronic Vernier scales now exist taking accuracy to five decimal places).

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1 Calder CJ, Campbell AP, Plastow SR. Measurement techniques for melanoma: a statistical comparison. *J Clin Pathol* 1990; 43:922–3.
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Identification of Haemophilus influenzae

Murphy *et al* described a comparative study of several commercially available systems for the identification of *Haemophilus influenzae*.[1] While the kits tested were found to be satisfactory for identification of the species, the authors concluded that the Rapid NH and RIM systems were not suitable for biotyping when compared with a modification of the APIIOS product. Since Kilian described the application of biotyping to *H influenzae*, based on three biochemical properties,[2] however, data accumulated on the prevalence and distribution of organisms of each biotype have indicated that this typing system is not generally useful for epidemiological purposes.

Apart from the more unusual and the rare biotypes (IV-VIII), biotyping of *H influenzae* is not so discriminative that it can provide even presumptive evidence that two or more isolates are identical. For example, more than 80% of capsule type b isolates, which are responsible for most invasive infections due to *H influenzae*, are of biotype I.[3,4] Among the 2434 *H influenzae* collected from England and Scotland in 1986, 82 of the total 87 encapsulated organisms and 57 of 66 type b isolates were of biotype I,[5] confirming that biotyping is not likely to be of use in establishing the epidemiology of *H influenzae* meningitis or epiglottitis.

Moreover, data from the same United Kingdom study showed that 33% of 2042 isolates from the respiratory tract were of biotype II and 30% were biotype III, while isolates from eyes were very predominantly of these two biotypes (46% and 43%, respectively, of 273 isolates). Two national studies have also reported that antimicrobial resistance does not seem to have any correlation with biotype.[5,6] Biotyping, therefore, does not seem to be a useful epidemiological tool in the study of spread of isolates in community or hospital populations.

On the basis of these results, it seems unlikely that routine biotyping of *H influenzae* in diagnostic laboratories would provide any useful information to clinical microbiologists, epidemiologists, or physicians. There are, however, several techniques in use in centres with a research interest in this species which discriminate well between isolates. Outer membrane protein subtyping and multilocus enzyme electrophoresis, used alone, and preferentially in combination,[4,7] have provided very useful data on worldwide and local distribution of groups of type b and non-capsulate *H influenzae*.

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1 Murphy PG, Craig I, Lafong AC, Smyth ETM. Evaluation of two rapid methods for identifying and biotyping Haemophilus influenzae. *J Clin Pathol* 1990;43:581–3.
2 Kilian M. A rapid method for the differentiation of Haemophilus strains. *Acta Pathol Microbiol Immunol Scand* 1974;82:835–42.
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4 Barenkamp SJ, Munson RS, Granoff DM. Comparison of outer-membrane protein subtypes and biotypes of isolates of Haemophilus influenzae. *J Infect Dis* 1983;144:480.
5 Powell M, Koutsia-Carouzou C, Voutsinas D, Seymour A, Williams JD. Resistance of clinical isolates of Haemophilus influenzae in United Kingdom 1986. *Br Med J* 1987; 295:176–9.
6 Dabernat H, Delmas C, Lareng MB. Prévalence de la résistance aux antibiotiques des Haemophilus influenzae isolés en France. *Pathol Biol (Paris)* 1986;34:372–8.
7 Musser JM, Barenkamp SJ, Granoff DM, Selander RK. Genetic Relationships of serologically non-typable and serotype b strains of Haemophilus influenzae. *Infect Immun* 1986; 52:183–91.

Drs Murphy, Craig, La Fong, and Smyth comment:

We welcome Dr Powell's clarifying comments on the usefulness of Kilian biotyping of *H influenzae*. Our findings of 35% biotype I among isolates in Northern Ireland make biotyping of slightly greater value in this population than Dr Powell's data suggest.[1] In the Northern Ireland collection we also reported on a higher incidence of ampicillin resistance than that reported in the England/Scotland study, so we are clearly dealing with a different population.[2]

The biotyping element of our study was included simply because the data were produced as an intricate part of identification kits as marketed by the manufacturers. *H influenzae* biotyping has also never been reported before in Northern Irish isolates. While we would most certainly not suggest "routine biotyping of *H influenzae* in diagnostic laboratories", nevertheless, if these kits were being used for identification it seems pointless to ignore freely available biotyping data if it were relevant.

We also agree wholeheartedly with Dr Powell's comments on the general usefulness of multilocus enzyme electrophoresis as we have extensive experience of this genotypic method of clonal analysis which not only generates data for epidemiological application, as Dr Powell suggests, but also produces genetic diversity data that are useful in the systematics of the taxon.

1 Powell M, Koutsia-Carouzou C, Voutsinas D, Seymour A, Williams JD. Resistance of clinical isolates of Haemophilus influenzae in United Kingdom. 1986 *Br Med J* 1987; 295:176–9.
2 Murphy PG, Craig I, La Fong C. The prevalence of antibiotic resistance in Haemophilus influenzae in Ireland. *J Antimicrob Chemother* 1990;25:1026–6.

Vulvo-vaginal irritation in diabetic women

We congratulate Rowe *et al* on their study of the cause of vulvo-vaginal irritation in women with diabetes mellitus.[1] It is essential that such research into the accuracy of established clinical dogma is performed. We are concerned, however, that the methods used in this study may be incomplete and may have led to a misleading conclusion.

Firstly, the method of obtaining vaginal samples was not clearly specified. Failure to use a speculum to provide direct access to the vaginal walls is an error which not only may result in contamination with microbiological flora from the skin or bowel, or both, but may also hinder thorough clinical examination.

Secondly, in genitourinary medicine clinics it is usual to examine microscopically a Gram stained vaginal smear, as well as take a culture, to diagnose vaginal candidiasis. We have found that 56% of women with vaginal discharge use "self-medication" before attending our clinic—26% with topical antifungal medications. In this latter group, microscopy of a Gram stained smear was frequently positive for Candida spores and hyphae while culture on Sabourand's media was negative.[2] In Rowe's study one quarter of the patients had previously been prescribed antifungal medications, but no mention is made as to when they were last applied. We believe a full drug and topical medication history is important and that microscopy should have been included in the assessment of these women.

Thirdly, no attempt was made to diagnose bacterial vaginosis; a pH test and amine test should have been performed.

Although a surprisingly small number of the women studied were sexually active, we do think that screening for sexually acquired infections (gonorrhoea, chlamydia) should have been performed. A high vaginal swab does not exclude *Trichomonas vaginalis*; an important cause of vulvo-vaginitis which was ignored in this study.

The low prevalence of sexual activity may in itself be due to problems that could benefit from intervention. Chronic vulvo-vaginal pathology, either infected or postmenopausal, may be associated with psychosexual dysfunction. Perhaps sensitive questioning in this area and careful examination may highlight problems which could be solved.[3]

Finally, many of the organisms, other than Candida, cultured by Rowe *et al* are considered opportunistic invaders of abnormal vaginal epithelium.[4] Defects of immune function do occur in diabetic patients, particularly those affecting leucocyte migration function,

and deficiencies of cell mediated immunity are known to predispose to mucocutaneous candidiasis.[5] We believe that further study of the histology and immunological response of the vulvo-vaginal epithelium in diabetic patients infected with the organisms shown by Rowe *et al* may be useful.

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1 Rusell JM, Barton SE, Lawrence AG. Self-medication by women attending a genito-urinary medicine clinic. *Int J STD AIDS.* 1990;1:279–81.
2 Catalan J, Bradley M, Gallwey J, Hawton K. Sexual dysfunction and psychiatric morbidity in patients attending a clinic for sexually transmitted diseases. *Br J Psychiatr* 1981;138:292–6.
3 Oates JK, Rowen D. Desquamative inflammatory vaginitis. A review. *Genitourin Med* 1990;66:275–9.
4 Sonnex C. Recurrent genital tract infection; A result of induced immunosuppression? *Genitourin Med* 1989;65:372–5.
5 Rowe BR, Logan MN, Farrell I, Barnett AH. Is candidiasis the true cause of vulvo-vaginal irritation in women with diabetes mellitus? *J Clin Pathol* 1990;43:644–5.

Dr Rowe et al comments:

We thank Drs Boag and Barton for their interest in our paper and answer their points as follows:

Swabs were taken by an experienced midwife (BRR) using a Cuscoe's speculum. We have been unable to find any standard nursing or medical text which advocates the taking of vaginal samples without a speculum and had assumed that this was implicit in the term "high vaginal swab".

A full drug and topical medication history (including the date when medication was last used) was taken from all 27 patients who went on to have further investigations (group 2). Only two of these patients had received antifungal treatment in the six weeks before the study. Boag and Barton's statement that, "one quarter of the patients had previously been prescribed antifungal medications," refers to the subjects who completed a questionnaire (group 1): these were not discussed further in our paper.

Examination for clinically important microbiological pathogens naturally included Gram stain and microscopy. A Papanicolaou smear was also performed. There were no cases in which microscopical examination showed candidal spores or hyphae with negative fungal cultures. Trichomonads were not seen and there were no reports of Trichomonas on the Pap smear, a common source of false positive results.[1] Gonorrhoea and chlamydia cultures were negative in all patients, consistent with the low prevalence of sexual activity. Amine tests were not performed, but *Gardnerella vaginalis* was specifically sought and cultured from two swabs. Vaginal pH rises in postmenopausal women, making interpretation of the pH test difficult.

We agree that chronic vulvovaginal pathology (of whatever aetiology) may cause sexual dysfunction and that it is essential to identify treatable problems. It is our policy to swab all patients complaining of vaginal irritation before treatment is started. Furthermore, we suggest that in non-insulin dependent diabetes organisms usually regarded as commensal should be considered potential pathogens.

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1 Eschenbach DA. Vaginal infection. *Clin Obstet Gynaecol* 1983;26:186–218.

BOOK REVIEWS

Testicular Tumors. RH Young, RE Scully. (Pp 240; $163.50.) Raven Press. 1990. ISBN 0 89189 295 8

The British and American classification of testicular tumours are both widely used internationally. Although the British system is superior, the WHO unfortunately adopted a slightly modified American classification. It is important that any textbook on testicular tumours gives a comparison of the British and WHO terminology.

Young and Scully are renowned experts in gonadal pathology and have produced a superbly illustrated account of testicular tumours containing more than 270 high quality colour macro- and microphotographs. It is well written, although not comprehensive, and covers prognosis, clinical aspects, and response to treatment. The importance of tumour markers and immunostaining are described.

This book illustrates the WHO classification extremely well, but makes no mention of the British classification and does not include the Royal Marsden staging method which is the most widely accepted. It adds very little to the official WHO publication. Pathologists and clinicians must be familiar with the British classification and this omission limits the value of the book to pathologists, at least in the United Kingdom.

KM GRIGOR

The Pathology of Organ Transplantation. Ed GE Sale. (Pp 327; 58.) Butterworths. 1990. ISBN 0 409 90133 4

This concise volume is a welcome addition for the practising pathologist concerned with transplantation, either working in a unit or through referral. Texts on transplantation are often limited to a specific organ, whereas in this publication skin, kidney, heart, heart-lung, pancreas, intestine, bone marrow and thymic and corneal transplantation are excellently discussed in separate chapters.

Acute rejection and long term changes are detailed. Immunological aspects are included and specific problems associated with a specific organ are also well described. Immunopathology is also described in an easily understandable way. Infections of transplant recipients are summarised. The final chapter addresses itself to fine needle aspiration in transplantation pathology.

The numerous illustrations are of the highest technical standard. Each chapter contains an extensive list of references. A comprehensive index is provided.

I can highly recommend this book, not only to pathologists, but also to those engaged in transplantation, either experimentally or surgically; all will derive much useful information.

EGJ OLSEN

NOTICES

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