Measurement techniques for melanoma: a statistical comparison

We write in support of the paper by Calder, Campbell, and Plastow. We have advocated the use of the Vernier scale on grounds of its availability, low cost, and ease of use. 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 × 9 = 0.1 mm. If greater accuracy was 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.)

Identification of Haemophilus influenzae

Murphy et al described a comparative study of several commercially available systems for the identification of Haemophilus influenzae. While the kits tested were found to be satisfactory for identification of the species, the authors concluded that the Rapid NHI and RIM systems were not suitable for biotyping when compared with a modification of the API1020 system. Since Kilian described the application of biotyping to H influenzae, based on three biochemical properties, 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 1. 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 1, confirming that biotyping is not likely to be of use in establishing the epidemiology of H influenzae menigitis 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. 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, have provided very useful data on worldwide and local distribution of groups of type b and non-capsulate H influenzae.

Vulvovaginal irritation in diabetic women

We congratulate Rowe et al on their study of the cause of vulvovaginal irritation in women with diabetes mellitus. 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 wall is an error which not only may result in contamination with microbiological flora from the skin or bowel, but may also hinder thorough clinical examination.

Secondly, in generative medicine clinical it is usual to examine microscopically a Gram stained smear, as well as take a culture, to diagnose vaginitis. 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 there while culture on chocolate agar was negative. 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 administered. 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 irritation, either infected or postmenopausal, may be associated with psychosocial dysfunction. Perhaps sensitive questioning in this area and careful examination may highlight problems which could be solved.

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