

Letters to the Editor

REPORT ON THE THIRTEENTH ABERDEEN SPRING SYMPOSIUM ON RESPIRATORY MEDICINE

Sir, Among the appropriate measures to identify cases of pulmonary tuberculosis,¹ mention should also be made of the use of clinically-derived scoring systems such as the ones utilised to predict the probability of culture positivity,² and the probability of a positive result either from the nucleic acid amplification test or the enhanced *Mycobacterium tuberculosis* direct test,³ in addition to the use of prediction models,⁴ because such systems 'fine tune' the index of clinical suspicion but each country needs to develop its own systems, based on the heterogeneity of its population, and the overall prevalence and probability of disease. Important advances have also been made in enhancing the specificity of Ziehl Neelsen sputum smears (whose sensitivity currently stands at 60–70% against the gold standard of sputum culture),⁵ by establishing the distinction between *M tuberculosis* versus non-tuberculosis mycobacteria, through the use of peptide nucleic acids in a fluorescent stain format,⁶ thereby improving the accuracy of case finding and, hence, contact screening. Delays in detection of *M tuberculosis* in culture specimens can also now be shortened by the use of semi-automated liquid culture systems such as the BACTEC 460 TB system, that can detect growth much earlier than the naked eye.⁷ The most fundamental development has been the use of audit to identify practices that cause delays in diagnosis⁸ so as to ensure wider compliance with the recommendation from the United States Centre for Disease Control (CDC) that identification of *M tuberculosis* cultures and determination of first line drug susceptibilities should be performed within 30 days of receipt of sputum specimens.⁹ Finally in keeping with the theme of the symposium, in ten years time we might also be using highly specific antigens to formulate blood tests which can detect, within two days, whether or not a patient's immune system has been sensitised by *M tuberculosis*, thereby achieving greater diagnostic accuracy than can be obtained with the tuberculin skin test.¹⁰ Rapid screening of high-risk groups would be possible, along with reduction of the potential for disease transmission by reaching diagnosis before the patient progresses to overt disease.

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LEPER

Sir, The word 'leper' is rightly eschewed by Barnetson¹ and by Kaufman and MacLennan³ in their recent papers in *Proceedings* dealing with clinical and historical aspects of leprosy. In 1948 a ban on the use of the stigmatising word was advocated by the delegates to the International Leprosy Congress.⁴

Kaufman and MacLennan use the word only once: 'While Bruce was despised . . . it is curious that he was never referred to as a 'leper', as this was probably the most offensive term available at that time.'³ Indeed, 'leper' is also considered by contemporary doctors who treat leprosy patients to be an offensive term. Buchanan, however, employed 'leper' a score of times, in addition to the occasions in which the word appears in quotes from other sources.²

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HOMER AND ALZHEIMER

Sir, The recent scholarly article on 'Homer and Alzheimer'¹ makes an interesting case that the snowdrop was the prophylactic against Circe's remarkable toxins reminded me of an even more striking example of pharmacological knowledge occurring in the fourth book of the *Odyssey* when Telemachus visits Menelaus and Helen in search of his lost father and the revival of old memories brings them all to tears, 'κλαει μην Αργειη Ελενη Διος ειγαγυια,' (then Helen of Argus, daughter of Zeus wept with Telemachus and Menelaus), a line of great pathos, showing that Helen the most beautiful woman in the world, and daughter of the king of the gods was still mortal and suffered like us all.

After they have all wept Helen adds something to their wine which must have been an opiate from its effects – 'αυτικ αρ εσ οινον βαλε φαρμακον, ενθεν επινον νηπενθες τ αχολον τε, κακων επιληθον αποντων' (she added a drug to the wine, which they drank, soothing and relaxing, which caused them to forget their woes). The word used for soothing – νηπενθες is that from which our word 'Nepenthe' derives.

Furthermore 'whoever consumed the drug would on that day feel no tears run down his cheeks, not though his mother and father died, not even if his brother or his dearest son were cruelly put to death before his very eyes'. According to the commentary I have, some authors considered the effect to be due to the magic of Helen's but the symptoms are clearly those of an opioid drug. In a similar vein some temperance Christians have claimed that Jesus did not turn water into wine at Cana but again the effect was that of his presence. It is interesting to find similar controversies occurring many centuries apart and against different religious backgrounds.

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A CONTRIBUTION TO THE RECENT REVIEW OF THE PROPERTIES OF ASPIRIN, EUROPEAN ASPIRIN FOUNDATION MEETING, EDINBURGH, OCTOBER 1999

Sir, This excellent review caught the author's attention because he has been working on the effect of derivatives of salicylic acid on biting insects namely the common midge, *Culicoides impunctatus*, and the mosquito, *Aedes egypti*.

Tunon *et al*¹ studied the mosquito repellent activity of compounds occurring naturally in yarrow, *Achillea millefolium* L. (Asteraceae), and noted a strong activity against mosquitoes. Salicylic acid is one of the major metabolites of aspirin and is known to have numerous applications in medicine,² in addition to being involved in plant pathogen resistance mechanisms.³ Professor Charles Brooks some years previously had been involved in the synthesis of aspirin derivatives for the MRC Rheumatism Research Unit in Glasgow and he supplied both advice and many of the compounds used in this recent study. We reported⁴ on the activity of a number of compounds of the general type 2-OH-Ar-COOH and 2-OHAr-CONHR where Ar refers to a benzene residue C6HX bearing 0-2 additional

substituents. In addition some hexahydro analogues were studied as exemplified by trans-2-hydroxycyclohexanecarboxylic acid.

Using an *in vitro* technique, our most striking finding was that salicyluric acid, a metabolite of aspirin, prevented biting by the common midge. Encouraged by this result, Dr Benson Estambale of the College of Health Sciences in Nairobi studied the effect of this compound on biting by *Aedes egypti* on volunteers. This work was aided by a research grant from this College. So far the results show a substantial reduction in biting after treatment with this compound. The interest of this finding is that salicyluric acid has an anti-feedant effect, deterring those insects which land on the skin from biting.

Our hypothesis is that when used in conjunction with an aerial repellent such as a suitable volatile oil, a synergistic effect is produced which blocks both landing and feeding.

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