insignificant); one individual was allergic to mice and one to guinea pigs and IgE antibodies to allergens from these species were not tested; two had skin reactions only (one very mild) and two had mild nasal symptoms only. We would also emphasise that this retrospective group was chosen from individuals who in a previous survey had reported allergic symptoms and our comments about increased antibody levels referred only to this group and should not be taken to indicate that the statement is necessarily true of a larger, controlled population. Even with this proviso our results do not support the statements made by Newman Talor et al in their abstract that “these findings suggest that the immunological mechanisms responsible for asthmatic reactions to laboratory animals are different from those involved in rhinitis and urticaea.” 1

We fail to see the point of the last paragraph of their letter. There was no intention to conceal anything. The prospective group is, as stated, a clearly defined population of individuals during their first year of employment. We agree that it is crucial to know if those with specific IgE are at particular risk of developing asthma, and this is one of the reasons for the continuing study referred to in our paper. Slovak and Newman Talor seem to be reading more into our results than is justified from the defined nature of the study. We also agree that the development of specific IgE could become a valuable monitor and that skin prick test conversion may be a significant marker. We are seeking scientific evidence for these assertions.

We should further point out that although our observations were “made on a volunteer sample” there was a 100% response; all individuals who began employment during the study period agreed to take part.

References


Book reviews


The IARC monographs will need no introductory description for anyone with an interest in chemical carcinogenesis. It would be superfluous to undertake an evaluative review of publications of this type, which summarise the conclusions of expert evaluation panels. Nevertheless, since these works constitute one of the most important information resources on carcinogenesis, the appearance of these titles will be noted alongside other reviews, with a brief indication of the subjects covered.

Volume 31 covers a diverse range of additives and other substances that may be present by design or accident in food for human or animal consumption. Apart from various antibiotics, preservatives, and similar materials, there are several interesting natural compounds in the list, including intrinsic components: cholesterol and flavonoids such as quercetin, for example. Pyrolysis products, and fungal metabolites such as T2 trichothecene, were also considered. In addition to their possible importance as dietary ingredients and occupational agents for the food industry, readers of this journal might care to speculate whether such chemicals have any interactions with toxic or carcinogenic substances with occupational origin.

Volumes 32 and 33 deal with the polycyclic aromatic hydrocarbons: as befits a group of compounds which include some of the earliest known and most extensively studied chemical carcinogens, a substantial body of information is provided. Forty two hydrocarbons and six heterocyclic compounds present in the environment are reviewed, to add to a previous series considered by the IARC in 1973. The subjects of volume 33 include several materials of more complex composition, such as oils and carbon black, that may be of interest in an occupational context. Some nitroarenes are also considered; many combustion processes seem to generate both these and the polycyclic aromatic hydrocarbons.

A G SALMON


These four invited lectures were given by recognised
experts at a symposium on mineral fibres held in Stockholm in September 1982. The objective of the symposium was to elucidate questions concerning the identification exposure and potential health effects of short and thin mineral fibres.

The first paper by E J Chatfield deals with the measurement of mineral fibres in ambient air. Considerable detail is given about the applicability of the various electron microscope techniques along with the practicalities of sample taking and their preparation before examination. A critical evaluation of the various methods with respect to potential fibre loss during sample preparation is given. In the light of this information it is clear that inconsistencies of procedures in the past makes comparison of different work difficult and the author emphasises the need for standardisation of techniques in future studies. Of particular concern is the need for a rational protocol for the identification of all types of mineral fibre in ambient air along with agreement on the minimum fibre length of biological significance, particularly in relation to the measurement of short fibres (<5 \mu m) that predominate in ambient atmospheres.

The second paper by F D Pooley discusses the analytical instrumentation and sample preparation method used to quantify asbestos and other fibres in lung and body tissue. The author states that reliable results can only be obtained using the most modern transmission electron microscopes (TEM). Few studies have used such equipment and hence some of the information available on tissue studies in the past may not be complete and may in fact even be misleading.

F Pott in the third paper discusses the various mechanisms by which fibres are deposited and cleared from the lung. The importance of length, diameter, and physiochemical properties for the carcinogenic potential of mineral fibres is detailed, although this discussion seems to raise more questions than it solves with respect to short, thin mineral fibres. The author concludes that long (10–20 \mu m), thin (diam <0.25 \mu m), and durable fibres exert the strongest potential carcinogenic effects.

The final paper by PC Elmes discusses the health hazards of short mineral fibres and summarises the available evidence relating to such health hazards. He concludes that many natural and synthetic fibres in the short fibre range may come under suspicion in the future. He emphasises the need for full cell culture and animal experiments in conjunction with tests to establish whether such fibres once in the body have sufficient durability to remain as a fibre long enough to trigger any malignant change. This is particularly important in view of the increasing use of asbestos fibre substitutes. It would be unfortunate if asbestos were replaced with a substance that was later found to have greater carcinogenic or fibrogenic properties than the material it is designed to replace.

The overall impression obtained from reading the book is that only one of the authors has directed his paper towards a discussion on short and thin mineral fibres. The principal discussion in the other papers has centred around asbestos fibres and only passing reference made to other mineral fibres. A definition of short and thin fibres, for example, which first appears three quarters of the way through the book, might have been better placed in the preface.

There is, however, much useful information, particularly on the experimentation and analytical techniques that have been used in measuring mineral fibres in the body and ambient air. The authors of each paper have reviewed the work on their respective topics which makes for interesting reading. They highlight the difficulties and complexities of the experimentation for determining the toxicology of mineral fibres (short and long) and have indicated where further work is needed and the type of analytical and experimental approaches that should be adopted in future studies. The book is useful for anybody involved or becoming involved in mineral fibre studies. The overall perspective is, however, hidden to a large extent by the large amount of experimental detail making it less suited to the general reader.

C J Purnell

Notices


A symposium on neurobehavioral methods is being organised by research institutions in cooperation with the World Health Organisation. The objective of the symposium is to present and discuss the use and evaluation of neurobehavioral methods in detecting early neurotoxic effects due to environmental and occupational exposures. Emphasis will be placed on the importance of neurobehavioral research for health surveillance and prevention of neurotoxic effects. During the symposium, task groups will meet and discuss standardisation of protocols and requirements for comparison of studies using neurobehavioral methods. The symposium fee