

CORRESPONDENCE

Study of occupational lung cancer in asbestos factories in China

Editor,—The article by Huilan and Zhiming¹ contains some findings that are difficult to reconcile with our understanding of lung cancer. In table 6, 19 of 57 (33%) of lung cancer cases occurred among non-smokers. This is a very high number considering that in most series less than 10% of cases occur in non-smokers. We also note that the text says, “. . . 67 lung cancers (including two pleural mesotheliomas) were found.” Why does table 6 only show 57 and not 65 or 67 lung cancers? Table 3 indicates that the incidence of lung cancer in women is less than half that of the men, although the rates are apparently not adjusted for age or smoking. If asbestos was thought to cause a high percentage of the lung cancers, male and female rates ought to be closer together.

The finding which most seriously calls into question the results of this study is in table 6, where the lung cancer relative risk for smokers (without asbestos exposure) is only 1.8. The usual relative risks for populations of smokers range from 5 to 25,²⁻⁶ depending on the amount and years smoked. A study that finds a relative risk this low raises serious questions concerning the credibility of any of the findings.

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- 1 Huilan Z, Zhiming W. Study of occupational lung cancer in asbestos factories in China. *Br J Ind Med* 1993;50:1039-42.
- 2 Hammond EC, Horn D. Smoking and death rates—Report on forty-four months of follow-up of 187,783 men. *JAMA* 1958;166:1294-308.
- 3 Hammond EC. Smoking in relation to death rates of one million men and women. *National Cancer Institute Monographs* 1966; 19:127-204.
- 4 Cederlof R, Friberg L, Hrubec Z, Lorich U. *The relationship of smoking and some social covariables to mortality and cancer morbidity. A ten year follow-up in a probability sample of 55,000 subjects age 18-69. Parts 1 and 2.* Stockholm: Department of Environmental Hygiene, Karolinska Institute.
- 5 Doll R, Peto R. Mortality in relation to smoking: 20 years' observations of British doctors. *BMJ* 1976;2:1525-36.
- 6 Damber LA, Larsson L-G. Smoking and lung cancer with special regard to type of smoking and type of cancer. A case-control study in north Sweden. *Br J Cancer* 1986;53: 673-81.

Author's reply

Editor,—I would like to make a brief reply to Morgan and Zhao about their comments on our manuscript.

Firstly, in table 6, 19 of 57(33%) of lung cancer cases occurred among non-smokers, 15 of whom were exposed to asbestos, so four cases were neither exposed to asbestos nor smoked.

Secondly, why does table 6 only show 57 and not 65 or 67 cases of lung cancer? The data given were only from seven factories. In the

control groups of the eighth asbestos factory questions were not asked about smoking.

Thirdly, table 3 shows that the incidence of lung cancer in women is less than half that in the men. This is true, and our SMR can be compared with the SMR of lung cancer of the nationwide investigation (1973-1975).¹ The SMR of lung cancer for men was 6.26 and 10.47 for women. The data for men and women were statistically significant compared with control data ($p < 0.01$). Table 6 indicates that smoking alone increased the RR of lung cancer only to 1.8. The number is lower than expected, we thought that might be due to a much lower average consumption of cigarettes before 1982 in China than in some western countries.²

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- 1 Zhu Huilan, Wang Zhiming. A retrospective cohort study on occupational tumors in asbestos manufactories. *Chinese Journal of Industrial Hygiene and Occupational Diseases*. 1987;5:29-32.
- 2 Union and ERC statistics. China: *The Reference News*, 29 May 1992.

NOTICE

Wellness Forum Seminars, London. 16 September and 19 October 1994.

With over £13 billion lost through sickness at work, companies need to take a hard look at health care in the workplace. The Wellness Forum was set up in 1992 to do just that and share and develop best practice.

The Forum now has over thirty five members with hundreds of other organisations and individuals attending events and receiving updates on our work. We sit on the steering group of the Health of the Nation Task Force and run a national competition to find the United Kingdom's most health conscious company.

We are arranging a seminar later this year and you may wish to note details for your diary/events column.

19 October 1994. Management of musculoskeletal problems in the workplace. During the National Workplace Health and Safety Week (17-21 October) experts from the fields of ergonomics, risk management and physiotherapy will discuss the prevention and management of these problems which cost employers around £650 million a year. The emphasis will be on practical and successful outcomes. The seminar will be held at Imperial College in central London.

Further details from: Paula Feery, Priory House, 8 Battersea Park Road, London SW8 4BG. Telephone: 071-498 3634. Fax: 071-498 3658.

BOOK REVIEWS

Occupational Hearing Loss, 2nd edition. (Occupational Safety and Health Series/24) By ROBERT THAYER SATALOFF, JOSEPH SATALOFF (Pp 840; price \$195) 1993. New York: Marcel Dekker, 270 Madison Avenue, New York, NY 10016. ISBN 0-8247-8814-1

The authors intend that this book should serve as a handy reference volume for industrial physicians, nurses, occupational safety and health personnel, legislators attorneys and others.

The subject matter seems to fall naturally into two sections. The authors themselves make the most substantial contribution in the first section, in which they discuss the physics of sound, audiometry, and the clinical aspects of hearing loss. The emphasis is on non-occupational causes of hearing loss, with numerous case illustrations. After this clinical section, there are a series of contributions on noise measurement and control, hearing conservation programmes, and legal issues (mainly concerning American practice). Such diverse topics as hearing loss in musicians, hearing loss in the railway industry, and hearing conservation underwater are also covered.

The clinical section contains much information that is not otherwise readily accessible, but is difficult to use because of the layout. After the standard medical reference format of aetiology, pathology, clinical features, diagnosis, and treatment for each disorder to be discussed would increase user friendliness. Occupational hearing loss is discussed within this clinical section, but in a separate chapter of some 14 pages. This is short measure for the title material of a reference volume. Some of the material presented elsewhere could be included here and expanded upon—for example, the epidemiology of noise induced hearing loss and the use of audiometry in diagnosis.

There is much useful information in the second section, although the utility of some of this is diminished by the fact that it concerns American practice. For example, there is a good section on prevention of hearing injury in industry that could find a wider readership if there was less emphasis on the Occupational Safety and Health Association criteria, and a more general discussion on the derivation of damage risk criteria.

As a reference for the diagnosis of non-occupational hearing loss, and for some aspects of hearing conservation this book (apart from the criticisms concerning layout) is excellent. Readership should include those in the legal profession who deal with claims for noise induced hearing loss, for example. It will also be a useful library reference for the occupational physician, but there is still a niche in the market for a substantive text that deals primarily with the practical problems of hearing loss in the workplace.

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