
British Journal of
**INDUSTRIAL
MEDICINE**

Editor: H A Waldron

Assistant Editors: P J Baxter L Magos J C McDonald K M Venables

Technical Editor: N B Haynes

Editorial Committee:

M J Gardner
J A Lunn

G H G McMillan
A J Newman Taylor

D C Snashall
Editor, *British Medical Journal*

NOTICE TO CONTRIBUTORS The *British Journal of Industrial Medicine* is intended for the publication of original contributions relevant to occupational and environmental medicine, including fundamental toxicological studies of industrial and agricultural chemicals. Short papers relating to particular experience in occupational medicine may be submitted. Other short papers dealing with brief observations relevant to occupational medicine that do not warrant a full paper, such as individual case histories, preliminary reports, or modifications to analytical techniques, will also be considered. Extended book reviews may also be included but these should not be sent without first consulting the Editor. Review articles should also not be sent in unless the Editor has first been approached as to their suitability for the Journal. Letters to the Editor are always welcome.

All papers should be submitted in triplicate to The Editor, *British Journal of Industrial Medicine*, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR. Each author must sign the covering letter as evidence of consent to publication. Papers reporting results of experiments on human subjects will not be considered unless the authors state explicitly that each subject gave his or her informed written consent to the procedure and that the protocol was approved by the appropriate ethical committee.

Papers are accepted on the understanding that they are contributed solely to this journal and are subject to editorial revision. The editor cannot enter into correspondence about papers rejected as being unsuitable for publication, and his decision is final. Papers should follow the requirements of the International Steering Committee of Medical Editors (*Br Med J* 1979;i:532-5). **Papers should be prefaced by an abstract of the argument and findings which should be more comprehensive than a summary. Papers and references must be typewritten on one side of the paper only, both in double spacing, and with a wide margin. Both SI units and their equivalents must be given throughout** (Baron *et al*, *J Clin Pathol* 1974;27:590-7). Photographs and photomicrographs on glossy paper should be submitted unmounted. Charts and graphs should be carefully drawn in black ink on tracing linen or Bristol board or stout white paper. Legends to figures should be typed on a separate sheet of paper.

References will not be checked by the editorial office; responsibility for the accuracy and completeness of references lies with the author. Number references consecutively in the order in which they are first mentioned in the text. Identify references in texts, tables, and legends by Arabic numerals above the line. References cited only in tables or in legends to figures should be numbered in accordance with a sequence established by the first identification in the text of a particular table or illustration. The number of references should be kept to the absolute minimum and only those essential to the argument being developed by the authors or to the discussion or if they describe methods which are being used

when the original is too long for inclusion. Usually one reference per typed page of manuscript should be sufficient.

Use the form of references adopted by *Index Medicus*—for instance, for a standard journal article: authors (list all authors when six or fewer, when seven or more, list only three and add *et al*), title, abbreviated title of journal, year of publication; volume number: **first and last page numbers**.

Proofs Contributors will receive one proof, but it is assumed that all but verbal corrections have been made in the original manuscript.

Reprints Reprints will be charged for; the number of reprints should be inserted on the form provided with the proofs.

Copyright © 1992 *British Journal of Industrial Medicine*. This publication is copyright under the Berne Convention and the International Copyright Convention. All rights reserved. Apart from any relaxations permitted under national copyright laws, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the copyright owners. Permission is not, however, required to copy abstracts of papers or of articles on condition that a full reference to the source is shown. Multiple copying of the contents of the publication without permission is always illegal.

NOTICE TO ADVERTISERS Applications for advertisement space and for rates should be addressed to the Advertisement Manager, *British Journal of Industrial Medicine*, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR.

NOTICE TO SUBSCRIBERS *British Journal of Industrial Medicine* is published monthly. The annual subscription rates are £114.00 (USA \$199.00). Orders should be sent to the Subscription Manager, *British Journal of Industrial Medicine*, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR. Orders may also be placed with any leading subscription agent or bookseller. (For the convenience of readers in the USA subscription orders with or without payment may also be sent to *British Medical Journal*, Box 560B, Kennebunkport, Maine 04046. All inquiries, however, must be addressed to the publisher in London). All inquiries regarding air mail rates and single copies already published should be addressed to the publisher in London.

Subscribers may pay for their subscriptions by Access, Visa, or American Express by quoting on their order the credit or charge card preferred together with the appropriate personal account number and the expiry date of the card.

Second class postage paid Rahway NJ. Postmaster: send address changes to: *British Journal of Industrial Medicine*, c/o Mercury Airfreight International Ltd Inc, 2323 Randolph Avenue, Avenel, NJ 07001, USA.

optimal panel for serodiagnosis of farmer's lung in Finland. The results in table 5 provide a basis for the selection. According to the results it can be suggested that for the serological diagnosis of farmer's lung in Finland, the test should include IgG antibodies against *T vulgaris* and IgA antibodies against *A fumigatus*. In follow up studies of farmer's lung patients to determine the phase of the disease, antibodies of other Ig classes and against other microbes should also be measured.

This study was financially supported by the Finnish Cultural Foundation.

- 1 Schatz M, Patterson R. Hypersensitivity pneumonitis—general considerations. *Clin Rev Allergy* 1983;1:451–67.
- 2 Terho EO. Extrinsic allergic alveolitis—the state of the art. *European Journal of Respiratory Diseases* 1982;63 (suppl 124):10–26.
- 3 Pepys J, Jenkins PA. Precipitin (FLH) test in farmer's lung. *Thorax* 1965;20:21–35.
- 4 Mäntyjärvi RA, Jousilahti P, Katila M-L. Antibodies to *Aspergillus fumigatus* in farmer's lung patients measured by enzyme-linked immunosorbent assay (ELISA). *Clin Allergy* 1980;10:187–94.
- 5 Ojanen TH, Katila M-L, Mäntyjärvi RA. The use of enzyme-linked immunosorbent assay (ELISA) in the diagnosis of farmer's lung. *Allergy* 1980;35:537–42.
- 6 Bamdad S. Enzyme-linked immunosorbent assay (ELISA) for IgG antibodies in farmer's lung disease. *Clin Allergy* 1980;10:161–71.
- 7 Terho EO, Mäntyjärvi RA, Heinonen OP, Ojanen TH, Vohlonen I, Tukiainen H. Familial aggregation of IgG antibody response to antigens associated with farmer's lung. *Int J Epidemiol* 1985;14:589–93.
- 8 Ojanen TH, Terho EO, Tukiainen H, Mäntyjärvi RA. Class-specific antibodies during follow up of patients with farmer's lung. *Eur Respir J* 1990;3:257–60.
- 9 Hapke EJ, Seal RME, Thomas GO, Meek JC, Hayes M. Farmer's lung. A clinical, radiographic, functional and serological correlation of acute and chronic cases. *Thorax* 1968;23:451–68.
- 10 Terho EO, Lacey J. Microbiological and serological studies of farmer's lung in Finland. *Clin Allergy* 1979;9:43–52.
- 11 Ojanen TH, Terho EO, Mäntyjärvi RA. Comparison of *Aspergillus fumigatus* and *Aspergillus umbrosus* antigens in serological tests of farmer's lung. *Allergy* 1982;37:297–301.
- 12 Kotimaa MH, Husman KH, Terho EO, Mustonen MH. Airborne molds and actinomycetes in the work environment of farmer's lung patients in Finland. *Scand J Work Environ Health* 1984;10:115–9.
- 13 Kurup VP, Mäntyjärvi RA, Terho EO, Ojanen TH, Kalbfleisch JH. Circulating IgG antibodies against fungal and actinomycete antigens in the sera of farmer's lung patients from different countries. *Mycopathologia* 1987;98:91–9.
- 14 Kurup VP, John KV, Ting EY, Somasundaram K, Resnick A, Marx Jr JJ. Immunochemical studies of a purified antigen from *Micropolyspora faeni*. *Mol Immunol* 1984;21:215–21.
- 15 Cormier Y, Belanger J, Durand P. Factors influencing the development of serum precipitins to farmer's lung antigen in Quebec dairy farmers. *Thorax* 1985;40:138–42.
- 16 McSharry C, Banham SW, Boyd G. Effect of cigarette smoking on the antibody response to inhaled antigens and the prevalence of extrinsic allergic alveolitis among pigeon breeders. *Clin Allergy* 1985;15:487–94.
- 17 Kusaka H, Homma Y, Ogasawara H, Munakata M, Tanimura K, Ukita H, et al. Five-year follow-up of *Micropolyspora faeni* antibody in smoking and nonsmoking farmers. *Am Rev Respir Dis* 1989;140:695–9.
- 18 Katila M-L, Mäntyjärvi RA. The diagnostic value of antibodies to the traditional antigens of farmer's lung in Finland. *Clin Allergy* 1978;8:581–7.
- 19 Gari M, Pinon JM, Poirriez J, Boulant J, Geers R, Thoannes H. Enzyme-linked immunofiltration assay (ELIFA) for the detection of specific antibodies (IgG-IgM-IgA-IgE) in farmer's lung disease. *Clin Allergy* 1986;16:553–62.

Accepted 2 September 1991

Correspondence and editorials

The *British Journal of Industrial Medicine* welcomes correspondence relating to any of the material appearing in the journal. Results from preliminary or small scale studies may also be published in the correspondence column if this seems appropriate. Letters should be not more than 500 words in length and contain a minimum of references. Table and figures should be kept to an absolute minimum. Letters are accepted on the

understanding that they may be subject to editorial revision and shortening.

The journal now also publishes editorials which are normally specially commissioned. The Editor welcomes suggestions regarding suitable topics; those wishing to submit an editorial, however, should do so only after discussion with the Editor.

- 19 Ives JC, Buffer PA, Greenberg SD. Environmental associations and histopathologic patterns of carcinoma of the lung: the challenge and dilemma in epidemiologic studies. *Am Rev Respir Dis* 1983;128:195-209.
- 20 International Agency for Research on Cancer. *IARC monographs on the evaluation of carcinogenic risks to humans. Volume 44. Alcohol drinking*. Lyon: IARC, 1988.
- 21 Nomura A. Stomach. In: Schottenfel D, Fraumeni JF. *Cancer epidemiology and prevention*. Philadelphia: WB Saunders, 1982:624-37.
- 22 Registrar General. *Decennial supplement for England and Wales 1970-1972. Occupational mortality*. London: HMSO, 1978.
- 23 Ames RG. Gastric cancer in coal miners: some hypotheses for investigation. *J Soc Occup Med* 1982;32:73-81.
- 24 Coggon D, Barker DJP, Cole RB. Stomach cancer and work in dusty industries. *Br J Ind Med* 1990;47:298-301.
- 25 Garabrant DH, Peters JM, Mack TM, Bernstein L. Job activity and colon cancer risk. *Am J Epidemiol* 1984;119:1005-14.
- 26 Vena JE, Graham S, Zielezny M, Swanson MK, Barnes RE, Nolan J. Lifetime occupational exercise and colon cancer. *Am J Epidemiol* 1985;122:357-65.
- 27 Vena JE, Graham S, Zielezny M, Brasure J, Swanson MK. Occupational exercise and risk of cancer. *Am J Clin Nutr* 1987;45:318-27.
- 28 Gerhardsson M, Norell SE, Kiviranta H, Pedersen NL, Ahlbom A. Sedentary jobs and colon cancer. *Am J Epidemiol* 1986;123:775-80.
- 29 Freudenheim JL, Graham S, Marshall JR, Haughey BP, Wilkinson G. A case-control study of diet and rectal cancer in Western New York. *Am J Epidemiol* 1990;131:612-24.
- 30 Siemiatycki J, Gérin M, Stewart P, Nadon L, Dewar R, Richardson L. Associations between several sites of cancer and ten types of exhaust and combustion products. *Scand J Work Environ Health* 1988;14:79-90.

Accepted 23 September 1991

Vancouver style

All manuscripts submitted to the *Br J Ind Med* should conform to the uniform requirements for manuscripts submitted to biomedical journals (known as the Vancouver style).

The *Br J Ind Med*, together with many other international biomedical journals, has agreed to accept articles prepared in accordance with the Vancouver style. The style (described in full in *Br Med J*, 24 February 1979, p 532) is intended to standardise requirements for authors.

References should be numbered consecutively in the order in which they are first mentioned in the text by Arabic numerals above the line on each occasion the reference is cited (Manson¹ confirmed other reports²⁻⁵ . . .). In future references to papers submitted to the *Br J Ind Med* should include: the

names of all authors if there are six or less or, if there are more, the first three followed by *et al*; the title of journal articles or book chapters; the titles of journals abbreviated according to the style of *Index Medicus*; and the first and final page numbers of the article or chapter.

Examples of common forms of references are:

- 1 International Steering Committee of Medical Editors. Uniform requirements for manuscripts submitted to biomedical journals. *Br Med J* 1979;1:532-5.
- 2 Soter NA, Wasserman SI, Austen KF. Cold urticaria: release into the circulation of histamine and eosino-phil chemotactic factor of anaphylaxis during cold challenge. *N Engl J Med* 1976;294:687-90.
- 3 Weinstein L, Swartz MN. Pathogenic properties of invading micro-organisms. In: Sodeman WA Jr, Sodeman WA, eds. *Pathologic physiology: mechanisms of disease*. Philadelphia: W B Saunders, 1974:457-72.

- 16 Epstein PE, Dauber JH, Rossman MD, Daniele RP. Bronchoalveolar lavage in a patient with chronic berylliosis: evidence for hypersensitivity pneumonitis. *Ann Intern Med* 1982; 97:213-6.
- 17 Kang KY, Bice D, D'Amato R, Ziskind M, Salvaggio J. Effects of asbestos and beryllium on release of alveolar macrophage enzymes. *Arch Environ Health* 1979;34:133-40.
- 18 Saltini C, Winestock K, Kirby M, Pinkston P, Crystal RG. Maintenance of alveolitis in patients with chronic beryllium disease by beryllium-specific helper T cells. *N Engl J Med* 1989;320:1103-9.
- 19 Rinderknecht J, Shapiro L, Krauthammer M, Taplin G, Wasserman K, Uszler M, Effros RM. Accelerated clearance of small solutes from the lungs in interstitial lung disease. *Am Rev Respir Dis* 1980;121:105-17.
- 20 Libshitz HI, McKenna RJ, Hayni TP, McMurtrey MJ, Mountain CE. Medistinal evaluation in lung cancer. *Radiology* 1984;151:295-9.

Accepted 8 July 1991

Destruction of manuscripts

From 1 July 1985 articles submitted for publication will not be returned. Authors whose papers are rejected will be advised of the decision and the manuscripts will be kept under security for three months to deal with any inquiries and then destroyed.

CORRESPONDENCE

Incidence of leukaemia and brain tumours in some "electrical occupations"

Sir,—Törnqvist *et al* (1991;48:597-603) correctly state that most epidemiological studies on "electrical occupations" have been criticised for the lack of information about exposure to magnetic fields as well as to other potential carcinogens. They seek to remedy this fault by incorporating magnetic field measurements in their study, but their interpretation of the exposure data presented in table 4 is not justified by the quality of their data. There seem to be several potential problems with these data.

Firstly, it appears that the exposure measurements for different occupations were made with different instruments. This should have been considered in the discussion, and might also have been indicated in table 4, for the reader's convenience.

A second, and more important, difficulty with the data also emerges from table 4. This table shows 50 measurements from nine distinct occupations in eight industries, collected with different measuring devices, and over different averaging times. The six median magnetic field values presented for six railway workers are a particularly egregious example. They incorporate three different types of data: two median values of respectively eight and six spot measurements, two half shift measurements, and two roughly 18 hour measurements. From this information the authors conclude that railway workers are "most likely a homogeneous group" with regard to exposures to magnetic fields. Given differences in methods of measurement and the lack of repeated measurements on individual workers with which to characterise sources of variance, however, this conclusion cannot be justified by the data.

Although epidemiological studies are often improved by quantitative exposure measurements, studies that lack such data may have at least one advantage. Their deficiencies are readily apparent, making it somewhat

less likely that the reader will be misled.

HANS KROMHOUT

*Department of Environmental Sciences and Engineering,
School of Public Health,
University of North Carolina,
Chapel Hill, USA*

The authors' reply

Sir,—Given the notorious lack of exposure information in most studies on "electrical occupations" and cancer, including our own previous studies we believe that our data do provide some new information. We also trust that the reader will have no difficulties in understanding the limitations of such data.

NOTICES

First International Conference on Occupational Hygiene, Brussels, Belgium, 7-9 December 1992.

The First International Scientific Conference of the International Occupational Hygiene Association (IOHA), will include plenary sessions with keynote speakers on occupational hygiene developments worldwide, the past, present, and future practice of setting occupational exposure standards, and health effects of biological agents. It will also include parallel sessions with papers on risk assessment for environmental pollution; exposure standards; special issues; challenges at the frontiers of occupational hygiene, and methods and strategies of prevention and control. For further information contact: Conference Secretariat, ECCO (European Congress Consultants and Organisers), Rue de l'Abbaye, 27a, B-1050 Brussels. Tel (322) 647 87 80; Fax (322) 640 66 97.

The 24th International Congress on Occupational Health, organised by CO 24 France under the patronage of the International Committee of Occupational Health (ICOH) will be held in Nice from 26 September to 1 October 1993

It will gather together worldwide specialists in occupational health and safety, along with many others concerned with these issues: physicians, nurses, medical assistants, hygienists, epidemiologists, ergonomists, safety engineers, business managers, managing executives, lawyers, union representatives: in short all those desiring to work jointly on the research topic:

"Occupational Health for each and everyone, everywhere"

As well as keynote addresses, presentations of papers, posters, technical exhibitions, and minisymposia, the following innovations will be offered: EUROSTARS exhibition, prepared by the 12 member States of the European Community.

COMPANIES FORUM exhibition, presenting examples of achievement in the field of occupational health and safety in several companies.

"ZIGZAG THROUGH FRANCE", a professional and cultural tour through several French provinces.

As well as English and French (the two official languages of ICOH congresses), a Spanish translation will be provided.

For further information contact Yveline Lagard, CO 24 France, "Les Miroirs", 18, avenue d'Alsace, Cedex 27, 92096 Paris La Défense, France. Tel 33 (1) 47 62 33 70; fax 33 (1) 47 62 31 53.

A major international conference bringing together leaders of medical education and health care in Europe will be held at the Royal College of Physicians in London, on 1 and 2 October 1992.

The idea for the meeting came originally from the Fellowship of Postgraduate Medicine. Subsequently organisations including the National Association of Clinical Tutors, the European Association of Internal Medicine, the United Kingdom Conference of Deans, the British Postgraduate Medical Federation, and the

Joint Centre for Educational Research and Development in Medicine have become involved.

The programme for the Conference is designed to examine critically the educational and political implications for medical training in Europe following harmonisation in 1992. Sessions will include discussions and presentations of directives for health professionals and the legislative base for these, current problems for training arrangements in various European countries, specialist training, mono-specialty initiatives including those in general practice, anaesthetics and public health, European initiatives in training and quality of care, educational research and development including that in primary care and in audit. There will also be contributions from speakers outside the European Community—that is, in wider Europe.

There will be ample opportunity for discussion after the formal presentations and it is also hoped to have poster presentations from others wishing to participate actively in discussion of the issues.

Further information can be obtained from Dr M W N Nicholls or Mrs J M Coops, The Conference Office, c/o The Fellowship of Post-graduate Medicine, 6 St Andrew's Place, London NW1 4LB. Tel (44) (0) 71 935 5556; Fax (44) (0) 71 224 3219.

First announcement: 4th Meeting of the International Neurotoxicology Association, Lo-Skolen

Congress Centre, Helsingør, Denmark, 6–11 June 1993

The scientific programme will consist of four symposia (one each day of the meeting: Wednesday social programme) with invited lecturers, and free communications (posters and poster discussions) within the field of neurotoxicology including recent news from experimental, clinical, and epidemiological research. Accepted abstracts will be published with the final programme and distributed to all participants. All manuscripts will be reviewed by an editorial board. The proceedings from the meeting will be published. The official language of the meeting will be English. No simultaneous translation will be provided. For further information contact: Dr Ole Ladefoged, Department of Pathology, Institute of Toxicology, National Food Agency, Mørkhøj Bygade 19, DK-2860 Søborg, Denmark. Telephone 45 39 69 66 00; fax 45 39 66 01 00.

An International Workshop on Biopersistence of respirable synthetic fibres and minerals will be held in Lyon, France, 7–9 September 1992

Organisers: J Bignon, Institut National de la Santé et de la Recherche Médicale (INSERM, France); R Saracci, International Agency for Research on Cancer (IARC, WHO); J C Touray, Centre National de la Recherche Scientifique (CNRS,

France).

The workshop will assess the toxicity and carcinogenicity of fibrous and non-fibrous dusts from numerous minerals and synthetic materials in relation to their biopersistence in lung tissue. Problems of deposition, clearance, translocation, and dissolution will be presented at the workshop which will review the state of the art in the light of new experimental data from different disciplines. The workshop will provide a forum for discussion between occupational physicians, epidemiologists, laboratory workers in both the biological and physical sciences, governmental regulators, and industrial producers. The sessions will cover: the current state of the art; in vitro assessment of biopersistence (acellular and cellular systems); significance of biopersistence in relation to pathogenic effects in humans; biopersistence in the pathogenicity of solid particles; validation and harmonisation of different methods of assessing biopersistence. In each session, in addition to the invited speakers, relevant proffered papers from participants will be included, and in addition, poster sessions will be organised. All papers will be presented in English.

For further information contact: J Bignon, Centre Hospitalier Intercommunal 40 ave de Verdun-94010 Créteil Cédex, France, telephone 33 148 98 77 35; fax 33 148 99 70 68 or R Saracci, International Agency for Research on Cancer, 150 Cours Albert Thomas-69372 Lyon Cédex 08, France, telephone 33 16 72 73 84 85; fax 16 72 73 85 75.