

THORAX

Editorials

Management of the patient with occupational lung disease

Most chest physicians now bear in mind the possibility that occupation may be responsible for lung disease, and the SWORD project, now in its fourth year, is regularly reminding participating doctors of the variety of occupations that may lead to such diseases.¹ It is probably true to say that British chest physicians are as aware of occupational causes of disease as are dermatologists. To those who are interested in the causes and prevention of disease this is encouraging, as only when the cause is known may one effectively address the problem of prevention. Chest physicians are also familiar – from contact tracing in tuberculosis – with the concept of case finding and prevention of disease in others being triggered by seeing a patient, and this procedure is an efficient routine in most units. We do not, however, have such a good record with respect to occupational lung disease, and it remains commonplace to encounter patients with such diseases whose sole advice has been to change their job and in whom the diagnosis has led to no further investigation. We can do better than this.

The habits and training of physicians lead us, properly, to give primary consideration to the welfare and, if possible, the cure of our patients. In the case of occupational disease, however, we have a wider responsibility since the environmental cause of the patient's disease is potentially putting other people at risk; the use of what was a hazardous substance has resulted in a quantifiable risk to the workforce. Although this is well illustrated by substances that cause occupational asthma, it should not be forgotten that the diagnosis of inhalation accidents – another common cause of occupational lung disease in Britain – and even of pneumoconiosis may reflect current and continuing risk to the workforce.

Chest physicians presented with patients with occupational disease may thus have three matters to consider: (1) how to treat the condition; (2) how to help the patient return to gainful employment; and (3) how to prevent others getting the same disease. In general most doctors feel comfortable only with the first of these, since the second and third require a visit to the less familiar world of the occupational physician.

Legal background

The responsibility for preventing occupational disease resides with the employer and the owner of the worksite, and both are liable under the criminal law if their negligence leads to disease or injury.² The Health and Safety at Work Act of 1974 makes clear that the employer should do all that is reasonably practicable to prevent such injury or illness. Under the Act come various regulations, the most pertinent of which are those known as COSHH (Control of Substances Hazardous to Health Regulations) which

require employers to audit the use of all hazardous substances, including water which may become contaminated with *Legionella* spp, to assess likely risks to workers, and to take reasonable action to reduce those risks. The working of the Act is overseen by the Health and Safety Executive (HSE) which employs skilled and experienced specialist inspectors and a team of doctors and nurses trained in occupational medicine known as the Employment Medical Advisory Service (EMAS). Furthermore, most occupational lung diseases such as asthma, pneumoconiosis, and acute gassing episodes are reportable to the HSE *by the employer* under RIDDOR, the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations. An obvious weakness of this is that many employers are unaware of their responsibility with respect to diseases as opposed to accidents and, even if they are, they may be unaware of the fact that an employee has an occupational disease.

How to help the patient

The essential decision is whether, and in what circumstances, the patient can go back to work. This will, of course, depend on individual circumstances and will take account of the risks of continuing exposure as well as of the financial and other benefits of continued employment.

The risks depend on the likelihood and extent of future exposure to the causative agent, and it is here that the doctor can make an important contribution. By definition, the patient has been exposed to a sufficient quantity of a harmful substance to fall ill. The doctor therefore has a moral duty to inform the employer as others may be at risk, but herein lies a dilemma; what if the patient does not wish the employer to know for fear of dismissal? An approach to management must therefore be tactful and respect medical confidentiality. There are three alternatives. If the doctor is experienced in visiting workplaces and dealing with managers and trade unionists a direct approach to the factory manager with an offer to give advice may be considered. For the majority, however, it is better to make the approach indirectly. If the organisation has an occupational health service the doctor in charge may be contacted confidentially (with the patient's consent); this doctor should be in a position to take the necessary action. Alternatively, where there is no occupational health service or if one exists but the patient does not have confidence in it, consent should be sought for referral to a doctor in EMAS. The address and number can be found in the telephone directory under "Health and Safety Executive," the procedure being as for any other referral. The EMAS doctor will usually see the patient and make appropriate investigations of the workplace, leading to recommendations to minimise risks to the workers.

Under no circumstances should a doctor give confidential medical information about a patient to an employer without signed consent.

The most usual problem confronting a doctor is occupational asthma, when the patient has become sensitised and is therefore likely to react adversely to low concentrations of the sensitising agent. In taking the history the doctor will have made a rough assessment of the likely levels of exposure and of measures, if any, taken to protect workers. It may not be possible for control of exposure in the workplace to be reduced sufficiently to prevent the occurrence of further attacks; nevertheless, the primary aim of the doctor should be to get the patient back to work if at all possible. The principles of control in the workplace, in order of effectiveness, are: (1) to eliminate the harmful substances by substitution; (2) to enclose the process so that workers are not exposed; (3) to remove the substance by exhaust ventilation; (4) to dilute any fugitive emissions by improved general ventilation; and (5) to provide personal protection for workers by means of respirators. Such measures may often be combined in order to maximise safety. The doctor visiting the workplace will point this out to the employer, stressing the requirement to do all that is reasonably practicable. If the visit was made by an EMAS doctor the employer will have been informed of the legal obligations and of the possible consequences of non-compliance.

Assuming that some such measures have been taken, it is worth exploring whether the patient is able to return safely to work. In some circumstances this is possible – for example, in mild cases of sensitisation to laboratory animals, flour, or wood dust. With careful control of exposure, by improvements in the workplace, and by provision of a respirator it may be possible for them to return to the work for which they have been trained. Whether or not this is the case may be decided by a supervised return with regular assessment of symptoms and measurement of peak flow; if the patient succeeds in getting back to work long term follow up is necessary to ensure that protective measures continue to be effective. In other circumstances – for example, when a patient has become sensitised to low molecular weight chemicals – return to work may be very hazardous and entail a serious risk of provoking a severe attack of asthma, as well as implying the development of chronic disease. In these circumstances other options need to be considered. Since the patient has a work-related disease there may be an entitlement to Industrial Injuries Benefit, and he or she should be advised to apply to the local office of the Department of Social Security.³ The employer should also be informed of the requirement to report the disease under the RIDDOR regulations and, as discussed above, EMAS may well be consulted directly.

The doctor's responsibility does not stop here. A patient put out of work on account of ill health deserves further help. Consideration should be given to the possibility of redeployment in the workplace and many employers will be helpful in this respect, bearing in mind their responsibility for causing the condition in the first place. If this is not possible the patient may be entitled to invalidity and other benefits, and should be advised to consult the local office of the Benefits Agency for information on these. There is also the possibility of vocational rehabilitation through the Department of Employment's Placing,

Assessment and Counselling Schemes (PACTS). Full information on these matters may be found in a recently published book.⁴

Finally there is the problem of so-called "compensation". Industrial injuries benefit has already been mentioned, but patients will often be keen to know about the possibilities of suing their employer. This is, of course, a matter for a lawyer, but some advice may be given. The patient should realise that it is necessary not only to show that the illness is due to the job, but also to prove that the employer has caused it by negligence. While both these proofs are decided "on the balance of probabilities," they are not always necessarily straightforward. The patient should be advised to consult a lawyer, usually through a trade union or, if entitled, with legal aid. Advice may be obtained through the Citizens' Advice Bureaux.

Preventing disease in others

Several of the actions taken above will have had the additional effect of making the workplace safer for the other exposed employees. The EMAS doctor or the organisation's occupational physician will have made an assessment of the risks to them and will have ensured that a full COSHH assessment has been carried out; this includes making a judgement on whether or not medical surveillance of those potentially exposed and whether monitoring of substances in the air of the workplace are necessary. Once a case of occupational asthma has occurred it is likely that some surveillance of the exposed workforce will be necessary to ensure that compliance with preventative measures is effective. The process of assessing risk may often involve a survey of the workforce to find how many others have already been affected, and EMAS doctors are often keen to cooperate with interested chest physicians in such surveys. Chest physicians may also help employers in setting up simple and cost effective systems for worker surveillance, usually based on a questionnaire and a method for pre-employment assessment and education of new employees.

Conclusions

The role of the chest physician does not cease when a diagnosis of occupational lung disease has been made and treatment advised. The diagnosis implies considerable difficulties for the future of the patient, for his or her dependants, and for others who may also be exposed to the same hazard; doctors therefore have an important opportunity to help their patient and also others in the workplace who may be at risk. Knowledge of what to do in such circumstances is as much a part of the therapeutic armamentarium of the good doctor as is a knowledge of pharmacology.

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- 4 Seaton A, Agius R, McCloy E, D'Auria D. *Practical occupational medicine*. London: Edward Arnold, 1994.