

mental evidence shows that in the diet of certain animals it can lead to ulceration of the intestinal tract.²

From a cursory study of the chemical constitution of most of the additives it seems unlikely that many of them would be toxic, and unusual compounds like brominated vegetable oils have already been rejected, apparently on the basis of evidence obtained in both Canada and the U.K. What is not made clear is whether the halogenated vegetable oils accumulate totally in human body fat or whether the level, like that of the halogenated hydrocarbons (D.D.T.), reflects the daily intake.

The medical profession should be grateful that so many distinguished scientists with many other commitments are prepared to devote their time and exercise their judgement on the safety or otherwise of hundreds of food additives. The existing system in this country allows the executive to make decisions based on the advice of disinterested experts, and fortunately it does not have to rely on official experts.

It is difficult to know how long the present system can continue, but it is important to recognize that most of the decisions reached are based on an expert's interpretation of the significance of animal experiments in relation to the possible risks to man. No action on food additives has had to be taken on the basis of direct evidence of harm to man. If food, including its additives, has an effect on people's health, the first clues will come from doctors who note unusual associations. Just as a doctor should ask his patients their occupation, so may a simple inquiry about dietary habits disclose something injurious to health.

More Polluted Air

The struggle for clean urban air is once again in the doldrums, and unless something is done soon to safeguard the clean-air policy hard-won progress will be lost. Last winter there were serious shortages of smokeless solid fuels. Both domestic users and institutions such as schools lacked them. The undertaking given in a White Paper¹ last week to see that more fuel for smokeless burning will be available next winter is therefore welcome. The recently published report of the Royal College of Physicians of London² should also stimulate fresh interest in this important problem of environmental health.

The general supply of solid smokeless fuels is the responsibility of the Ministry of Technology, which has a concern for the viability of the coal industry, while the clean air policy is the responsibility of the Ministry of Housing and Local Government. But it seems that where shortages of smokeless fuels arise the Ministry of Housing and Local Government is prepared to suspend smoke control orders to avoid unnecessary hardship. While this may have to be done if people are to keep warm, surely these shortages are a wholly unnecessary threat to health. It is to be hoped that any such temporary suspension would be given only in circumstances of real difficulty, and it should be the subject of close and continuing scrutiny. Otherwise urban pollution of the air will once again start to increase, with all its adverse effects on community

health.^{2,3} If solid smokeless fuels are to continue in short supply, alternative fuels must be considered as a matter of urgency. There is little point in local authorities accepting solid-fuel burning appliances in smoke-control areas unless a plentiful supply of fuel at a reasonable price is available. Price is important, not least for the elderly, who tend to adhere to open fires to which they have been used and are less keen to change to one of the cleaner forms of house warming.

The benefits to health of smokeless zones must be regarded as great and undoubted, and no excuse should be accepted to allow central or local government to slow the advance towards a less polluted urban atmosphere. As smoke control costs money, some local authorities are only too keen to find a reason for doing nothing about it; they require prodding, which is the duty of central Government. Unless vigorous action is taken soon we shall see the sort of recurrence of the ill-effects of polluted air on the respiratory tract of which the London smogs have provided classic examples, the one in 1952 causing 4,000 deaths.^{4,5} And reduction of smoke in the atmosphere allows us to enjoy more of that precious commodity, sunshine.⁶

Lung Biopsy

Some 20 years ago lung biopsy rapidly found favour as a diagnostic procedure. Among the reasons for this were the comparative ease with which tissue could be obtained, a mounting interest in diffuse infiltrations of the lungs, about which little was known at that time, and the comforting thought that should tuberculosis be encountered the newly discovered antituberculosis drugs would probably prevent dissemination of the infection.

In its simplest form biopsy consists of no more than the aspiration of a small core of tissue into a wide-bore needle. Failure to secure a satisfactory specimen is fairly common, and even when the aspiration is successful the fragment is often too small to yield a firm pathological diagnosis, especially in diffuse disease of the lung. Latterly, with a view to aspirating adequate material with greater consistency, biopsy has been performed by inserting a rapidly rotating drill, sometimes an alarming undertaking for both patient and operator. Any form of needling is liable to be followed by a troublesome pneumothorax or pleural infection, and owing to the indifferent contribution it has made in assisting diagnosis over the years the method has now been virtually abandoned. A notable exception is the occasional patient who is unsuitable for thoracotomy and who has a peripheral mass, usually carcinomatous, the nature of which cannot be determined by other means. For patients who are suitable for surgical treatment and who present with radiographic evidence of localized lung disease of uncertain aetiology thoracotomy is ordinarily indicated, both for diagnosis and as a preliminary to treatment by resection.

Diffuse disease of the lungs may have many different causes, some of which have similar morbid anatomical appearances. Hence a much larger fragment of lung must be obtained at biopsy than could possibly be aspirated through a needle. For this purpose an open or surgical lung biopsy is necessary and is carried out through a limited thoracotomy with subperiosteal rib resection. The site of election is laterally in the line of the greater fissure or, on the right side, the middle lobe, where an edge of tissue is available. In the *B.M.J.* this week (page 57) Professor J. G. Scadding relates his experience of open lung biopsy during the past 13 years, in which he has called it into use on only 43 occasions. The diagnoses reached

¹ *The Protection of the Environment: The Fight Against Pollution*, Cmnd. 4373. London, H.M.S.O., 1970.

² Committee of the Royal College of Physicians of London, *Air Pollution and Health*. London, Pitman, 1970.

³ *British Medical Journal*, 1970, 2, 190.

⁴ *Mortality and Morbidity during the London Fog of December 1952*, Report on Public Health and Medical Subjects, No. 95. London, H.M.S.O., 1953.

⁵ *British Medical Journal*, 1963, 1, 489.

⁶ Brazell, J. H., *Nature*, 1970, 226, 694.