Letter to the Editor

Mycobacteria contaminating histological sections

A woman aged 56, suffering from Huntington's chorea, succumbed to a respiratory infection. At necropsy the salient gross findings were bronchopneumonia of the left lower lobe of the lung and a moderate degree of cerebral atrophy.

A routine microscopical examination confirmed the presence of banal bronchopneumonia but in addition a number of small non-caseating epithelioid granulomata were present. A Ziehl-Neelsen stained preparation showed the presence of acid-fast bacilli. No granulomata were found in multiple sections of the liver and spleen, and macroscopically the lungs had shown no features of tuberculous infection. However, it was considered right to examine the relatives of the deceased and the nurses and other close contacts in the hospital ward. No case of tuberculosis was discovered.

In the meantime the brain was re-examined in view of the fact that the unfixed portion, retained for chemical studies, might constitute an infection hazard. Sections of the meninges showed no inflammatory process but a few acid-fast bacilli were demonstrable in Ziehl-Neelsen stained sections prepared concurrently. This finding aroused suspicion that the organisms might be contaminants. Accordingly, a blank wax block was prepared, sectioned, mounted, and stained. Acid-fast bacilli were again found.

The slides and coverslips used in the histology department are always fresh from the packet, and smears of the wax alone revealed no organisms. However, examination of a centrifuged specimen of water from the surface of the floating-off bath revealed acid-fast bacilli and they were also found in scum from the bottom of the bath. It would appear, therefore, that such organisms could readily have been picked up on the wax sections before these were mounted.

It is, of course, well known that mycobacteria may be found in water baths and within taps but the possibility that sections might thereby become contaminated has perhaps not been widely appreciated. In this laboratory, some months before the present case, a rectal biopsy from a child was reported as showing probable tuberculous infection on the evidence of epithelioid granulomata and the pre-

sence of acid-fast bacilli. The patient received specific therapy but when a surgical specimen of bowel became available for examination the true diagnosis eventually proved to be Crohn's disease.

After discovering these facts the water bath was drained daily and refilled with de-ionized water. However, one day in error the bath was again filled from the tap. A section mounted that day showed an algal filament and blue-green algae were demonstrable in the tap water. Further comment on the quality of the hospital water supply is scarcely necessary but the incident serves to emphasize again how easily histological sections may become contaminated with extraneous micro-organisms.

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Book review

Control of Hospital Infection—A Practical Handbook. Edited by E. J. L. Lowbury, G. A. J. Ayliffe, A. M. Geddes, and J. D. Williams. (Pp. xi + 306; £8.50.) London: Chapman and Hall. 1975.

Many hospitals have prepared guides to the prevention of infection in hospital. This one, coming from a working party of the West Midland Regional Health Authority, can be wholeheartedly recommended. Intended as a practical handbook for those who work in hospitals, it is didactic, setting out clearly and firmly the views of the committee, based on the great experience of the Chairman and his colleagues.

In it will be found a very wide coverage of the procedures and arrangements that hospitals need in their attempt to see that infections do not pass from one patient to another, and answers to questions that the Control of Infection Officer and the microbiologist are asked with regularity. Sterilization, disinfection, cleaning, and ward and operating theatre procedures are all dealt with. Kitchens, laundries, and mortuaries are not forgotten. There are sections, too, on those departments that pose special problems, such as children's wards, intensive care units, pathology laboratories, and renal units. Immunization is included and there is a short section on chemotherapy.

Although with a book of this kind there are bound to be some statements about which there will be disagreement, this book is likely for some time to come to be the one to which many of us turn when we have to answer enquiries or wish to review our own arrangements.

R. A. SHOOTE