Immunohistological detection of *Legionella pneumophila* in lung sections

We were interested in the results reported by Theaker *et al*¹ in relation to the well publicised outbreak in Stafford to which they refer. We draw your readers' attention to a similar but less extensive investigation² of the equally well publicised "Benidorm" episode,³ performed before monoclonal antibodies were generally available. Organisms have also been shown in tissue sections by a glucose oxidase immunoenzyme technique.⁴

Although the negative cases reported by Theaker *et al*¹ are likely to be genuine, we draw their attention to the range of results in our publication.² Some organisms did not stain with the type specific antisera because the patient's antibody was coating them. While it is possible that some of the negative results reported by Theaker *et al* may be due to the same blocking process, their use of trypsin might have assisted in unblocking the bacterial antigen. We did not use pre-staining digestion with trypsin.

As the authors suggest, the histopathological study of tissue from patients with pneumonia both during life and after death has been advanced considerably by these and other staining procedures.

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Determination of end point of edetic acid decalcification

For acidic methods of decalcification the commonly used method for determining whether decalcification is complete is ammonium oxalate (AO) to precipitate the Ca²⁺ from the decalcifying fluid. When no more Ca-oxalate precipitate is seen in the most recent change of decalcifying fluid, then the decalcification is completed.

Although Kiernan¹ claimed that AO could be used to determine the end point of decalcification with disodium ethylenediamine tetra-acetic acid, all other authors recommend radiology or physical methods, such as cutting, bending, or needling,²⁻⁴ or even weighing.⁵ Culling *et al*⁶ stated that the ammonium oxalate method does not work with edetic acid, and this is the general experience.

A simple way to free the calcium from the chelate is to pour the edetic acid decalcifying fluid into a crucible, evaporate to dryness, and then let the residue char. It is important that no white desiccated but not decomposed edetic acid is left. When cool, the inorganic salts are dissolved in 10% hydrochloric acid. Because there are carboxyl particles in this solution, it is necessary to filter it before making alkaline with ammonia and adding the saturated ammonium oxalate solution.^{1-3,6}

A similar result would be achieved by using an atomic absorption spectrophotometer to pyrolyse the Ca-edetic complex and directly detect if calcium is present.

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Book reviews

Cytology of Body Cavity Fluids. A Colour Atlas. EB Butler, CM Stanbridge. (Pp 70; £30.) Chapman and Hall Medical. ISBN 0-412-25600-2.

Since body cavity fluids constitute a significant part of the workload of every diagnostic cytopathology laboratory, a new British monograph on this subject is welcome. The book begins with a section on the appearances seen in specimens from normal patients. Today when peritoneal lavage is increasingly being performed at laparotomy, this is a valuable feature since the cellular patterns may differ considerably from those seen in paracentesis specimens. This chapter is followed by an account of non-malignant conditions, but the major portion of the book is devoted to malignant disease including mesothelial, epithelial, and non-epithelial lesions. The techniques described and illustrated are largely standard laboratory methods, with conventional Papanicolaou and Romanowsky staining. A small section is devoted to the features seen in cell block preparations using the transmission electron microscope. The illustrations are somewhat uneven in quality, both in colour and in black and white. While this may perhaps be unavoidable with some specimens, it detracts to some extent from the usefulness of this monograph as a basic laboratory handbook.

HELENA E HUGHES

Atlas of Urinary Sediments. Diagnosis and Clinical Correlations in Nephrology. G Piccoli, D Varese, M Rotunno. (Pp 210; \$82.50.) The Raven Press. 1984. ISBN 0-890004-507-0.

This is a beautifully illustrated atlas which is basically subdivided into a section dealing with the morphological aspects of different constituents of urine—that is, red cells, white cells, crystals, etc. This is well done and appropriately illustrated. While commenting on the recent interest in dysmorphic erythrocytes it properly introduces a cautionary note with respect to urine deposits in which it is not possible to separate "glomerular" from "non-glomerular" haematuria. This section is very detailed and especially important in that it illustrates "artefacts" which may confuse the inexperienced microscopist.

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