Immunohistological detection of Legionella pneumophila in lung sections

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

Although the negative cases reported by Theaker et al. are likely to be genuine, we draw their attention to the range of results in our publication. 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.

References


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 Ca\(^{2+}\) 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 Kiernan 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, or even weighing. Culling et al. 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 carbon particles in this solution, it is necessary to filter it before making alkaline ammonia and adding the saturated ammonium oxalate solution.

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.

References


Book reviews


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