Reviewer's report

Title: Unsuspected Pulmonary Alveolar Proteinosis in a person with AIDS: A case report

Version: 1 Date: 24 March 2010

Reviewer: charles feldman

Which of the following best describes what type of case report this is?: Unexpected or unusual presentations of a disease

Has the case been reported coherently?: Yes

Is the case report authentic?: No

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: No

Is the case report persuasive?: No

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

This was a case report describing an HIV-infected patient who presented with respiratory symptoms and diffuse pulmonary infiltrates. Chest CT demonstrated ground glass opacities, cystic changes in the lungs, as well as bilateral spontaneous pneumothoraces. Subsequent lung biopsy revealed pulmonary alveolar proteinosis (PAP) concurrent with CMV pneumonitis. In general the case is well described.

COMMENTS

I have two concerns about the case presentation that lead to some doubt as to the correct diagnosis and need to be addressed

1) Is the histology obtained from lung biopsy absolutely characteristic of alveolar
proteinosis, and could it not be anything else? The lung biopsy figure legend indicates only that the histology revealed “proteinaceous material filling up the alveoli”. Were special stains done to look for, and exclude the presence of, pneumocystis organisms? Were special stains done to look if the material was PAS positive, as it would be with PAP? Were any immunohistochemical stains done?

The clinical picture, as well as the chest radiograph, and the CT scan all appear to favour the diagnosis of PCP. Firstly, the chest radiograph was reported as showing a diffuse interstitial pattern, whereas alveolar proteinosis characteristically has an alveolar pattern, more prominent in the mid zone and bases, with sparing of the apices. Secondly, the CT showed a ground glass pattern, with cysts, and pneumothoraces, rather characteristic of PCP, and there was no evidence of the characteristic crazy paving of PAP. Thirdly, the histology demonstrates the presence of proteinaceous material in the alveoli, not dissimilar from that of PCP. Lastly, PAP is said to be very uncommon in HIV-infected persons.

In addition to addressing the above questions, I think it important for a more complete description of the histology to be given by the authors to convince the readers that this is, in fact, PAP.

2) It is not uncommon to find CMV in specimens such as lung biopsy where the microorganism may simply be present but not causing inflammation and not contributing to the disease process in any way. Was there any evidence of an inflammatory process in association with the isolated organism, rather than it being simply an “innocent bystander”? Were any CMV serological studies done or CMV viral loads performed? Clearly the presence of the organism in no way proves that it had any relationship to the presence of PAP

**Quality of written English:** Acceptable

**Declaration of competing interests:**

I declare that I have no competing interests