



Internal Medicine Flashcard

Calcified pulmonary nodules

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1. Indication

A 78-year-old female with stroke and hydrocephalus post-ventriculo-peritoneal shunt insertion presented with shortness of breath, productive cough, and fever that had been present for several days. Physical examination revealed basal crackle and rale over the left low lung (LLL) field. Chest radiograph (Fig. 1) showed an alveolar pattern involving LLL and a left-side pleural effusion. In addition, we observed multiple calcified nodules over the whole lung field. No specific occupational exposure was recalled.

What is the diagnosis?

2. Discussion

A diagnosis of LLL pneumonia and parapneumonic effusion was made. The patient recovered well after empiric antibiotic treatment. A review of her history revealed that she had chicken pox when she was in her fifth decade. Therefore, the multiple calcified pulmonary nodules found on examination are a typical feature of a late sequel of varicella pneumonia.

Chickenpox is a highly contagious disease caused by the varicella-zoster virus. Although rare, varicella pneumonia is the most serious complication of chickenpox, which commonly affects adults. Patients may show impaired gaseous exchange, with progressive hypoxemia, and are at a high risk of respiratory failure [1]. Resolution of pneumonitis often parallels improvement of skin rash. Mortality rates seem to be improving with 6% in more recent data. However, in subsequent years, survivors show higher restrictive ventilatory or diffusion defects in addition to diffused miliary calcifications [2].

With regard to small calcified lung nodules, they are because of dystrophic calcification in the injured areas of the lung. Dystrophic calcification is followed by caseation, necrosis or fibrosis. Varicella pneumonia may cause widespread minute micronodular calcifications (nodule diameter, 1–3 mm) as a late sequela. However, no associated calcifications are observed in the mediastinal lymph nodes. Major differential diagnoses include disseminated histoplasmosis and miliary tuberculosis [3].

Contributorship

Chih-Chen Chou and Te-Chun Shen wrote the report.
Te-Chun Shen provided case details and planned the report.
Chih-Yen Tu supervised the report.

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Fig. 1. Chest radiograph showed an alveolar pattern over LLL, left-side pleural effusion, and multiple calcified nodules over the whole lung field.

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Conflict of interests

The authors state that there are no competing interests.

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