

Images in...

Invasive pulmonary aspergillosis diagnosed by broncho-alveolar lavage

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DESCRIPTION

A 72-year-old woman was admitted to our hospital in August 2011 with a 5-day history of fever. She had been taking prednisolone at 10 mg/day for several years as treatment for autoimmune thrombocytopaenia. On admission, she was febrile with a body temperature of 38.5°C, and peripheral oxygen saturation was 88% in room air. Serum



Figure 1 Chest radiography on admission showed reticulonodular infiltration, particularly in both lower fields.

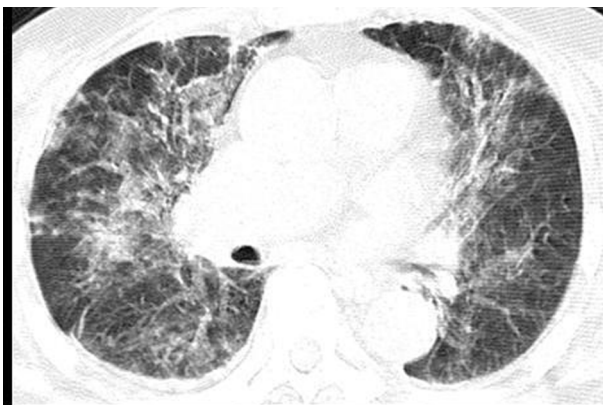


Figure 2 CT of the chest showed sparsely distributed ground-glass alveolar opacities with patchy consolidation.

β -D-glucan and galactomannan (GM) testing yielded negative results. Chest radiography on admission showed reticulonodular infiltration, particularly in both lower fields (figure 1). CT of the chest showed sparsely distributed ground-glass alveolar opacities with patchy consolidation (figure 2). Therapy was initiated with broad-spectrum antibiotics (pazufloxacin), but respiratory status continued to deteriorate. Bronchoscopy was then performed 4 days after admission. Positive results were obtained for GM testing of broncho-alveolar lavage (BAL) fluid (>5.0), while culture of BAL fluid yielded negative results. Invasive pulmonary aspergillosis (IPA) was thus diagnosed. Therapy was initiated with 3 mg/kg/day liposomal amphotericin B, leading to immediate improvements in both radiological findings and hypoxaemia. In this case, typical radiological findings of IPA on CT, such as dense, well-circumscribed lesions with a halo sign, were not evident and serum β -D-glucan and GM testing yielded negative results. BAL GM can be useful for early diagnosis of IPA in haematological malignancies with pulmonary infiltrates.¹

Learning points

- ▶ Early diagnosis of invasive pulmonary aspergillosis is essential for maximising treatment efficacy and survival, but the prompt diagnosis of invasive pulmonary aspergillosis remains difficult.
- ▶ The clinical and radiological findings in the early stage of infection are often non-specific particularly in non-neutropenic patients.
- ▶ BAL GM is extremely useful for early diagnosis of IPA in haematological malignancies with pulmonary infiltrates, due to the high sensitivity and specificity.

Acknowledgements This manuscript has not received any outside funding or support.

Competing interests None.

Patient consent Obtained.

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1. Maertens J, Maertens V, Theunissen K, *et al*. Bronchoalveolar lavage fluid galactomannan for the diagnosis of invasive pulmonary aspergillosis in patients with hematologic diseases. *Clin Infect Dis* 2009;**49**:1688–93.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Uchiyama M. Invasive pulmonary aspergillosis diagnosed by broncho-alveolar lavage.
BMJ Case Reports 2012;10.1136/bcr.03.2012.6144, Published XXX

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