

Letter to the Editor

FATAL PNEUMONIA ASSOCIATED WITH HUMAN METAPNEUMOVIRUS (HMPV) IN A PATIENT WITH MYELOID LEUKEMIA AND ADENOCARCINOMA IN THE LUNG

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Abstract

We describe a clinical case of a 59 old caucasian male who was delivered to the hospital for severe pneumonia associated to human metapneumovirus. The patient suffered from a leukemia and an adenocarcinoma in the lung and died two weeks after submission due to fatal respiratory failure.

TO THE EDITOR:

A 59 year old male caucasian patient who suffered from a chronic myeloid leukaemia was admitted for severe dyspnoe, cough and fever (>39.0 °C) in late summer 2003. He had received allogenic bone marrow transplantation in 1998 and donor lymphocyte infusion in 1999. At admission, CRP levels (183mg/l, normal <8 mg/l) were elevated and the leukocyte counts were in normal range. He received antibiotic treatment with ciprofloxacin (400 mg twice daily) and clarithromycin (250mg twice daily). Chest X-ray and com-

puted tomography were performed and revealed interstitial infiltrates as signs of an atypical pneumonia (fig. 1). Bronchoscopy showed hyperaemia of the tracheal mucosa suggesting inflammation and histological analysis of lung biopsies demonstrated the presence of the infiltrates with lymphocytes and plasma cells, and adenocarcinoma of the lung was diagnosed. Chemotherapy with gemcitabine and navelbine was initiated immediately but unfortunately led to a severe aggravation of the atypical pneumonia and finally to a fatal pulmonary failure ten days after admission.

The bronchoalveolar lavage (BAL) obtained during the aggravation of the pulmonary symptoms was tested for *Mycobacterium tuberculosis*, *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, *Legionella pneumophila*, *Pneumocystis jiroveci*, *Herpes simplex virus*, *Varicella Zoster Virus* by PCR and culture with negative results. An archived portion of the BAL was assayed retrospectively by PCR/RT-PCR for human bocavirus, respiratory syncytial virus, human coron-

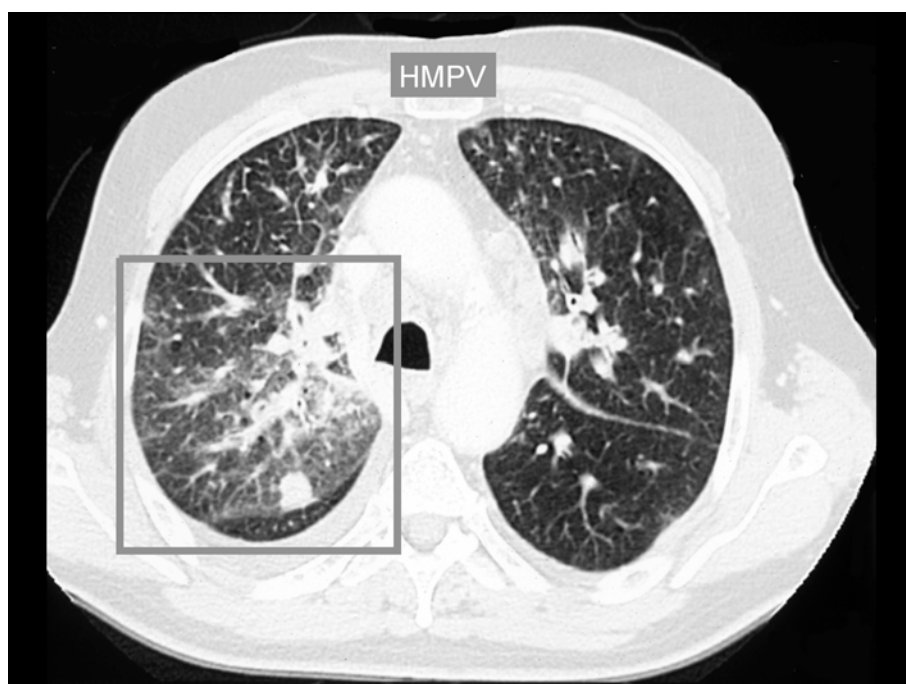


Fig. 1. CT-scan revealed reticulo-nodular infiltrations of both lungs more marked in the right lower zones (within the box).

aviruses including SARS coronavirus, Influenza virus, and human metapneumovirus [1]. The only positive result was obtained for the human metapneumovirus (HMPV).

Although the underlying cancer diseases observed in the patient will have significantly contributed to the dramatic clinical course when the pulmonary symptoms occurred, we believe that the combination of immunosuppression, lung adenocarcinoma, and HMPV infection led to the fatal lung failure of the patient.

Until now information on HMPV infections in adults, especially in high risk patients under immunosuppression is rather limited [e.g. 2, 4]. Our data complement the most recent observations by Englund and colleagues and indicate that HMPV is a pathogen that may cause severe life threatening infections in high risk adult patients [3]. Especially cancer patients and transplant recipients presenting with severe pneumonia caused by new respiratory viruses deserve the clinician's foremost attention. Atypical pneumonia is fairly common in patients with immunosuppression due to chemotherapy or after organ transplantation.

Thus the current observation emphasizes the necessity of the identification of the causative agent and the development of new treatment options, including specific antiviral drugs.

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