Case report

A 69-year-old man presented to the emergency room in October 2006 with complaints of dyspnoea on effort, somnolence, a non-productive cough, fever and night sweats. History was significant for chronic idiopathic thrombocytopenic purpura for which he underwent splen-ectomy in 2002 and relapsed thereafter. Three weeks prior to admission, he experienced fatigue and a new episode of severe thrombocytopenia, for which he had received dexamethasone at a dose of 40 mg per day for 3 days.

On admission, his temperature was 39.4 uC, heart rate was 117 beats min^{21}, blood pressure was 115/72 mmHg and respiratory rate was 26 min^{21}. Physical examination Legionnaires' disease in immunocompromised patients revealed fine crackles and marked dullness of the right middle lobe. Petechiae and multiple ecchymoses were present on the lower extremities, trunk and oral mucosa.

Laboratory testing was remarkable for leukocytosis (13.4 nl^{21}), thrombocytopenia (3 nl^{21}) and elevated C-reactive protein (CRP, 392 mg l^{21}, normal ,5 mg l^{21}). Hepatic, pancreatic and renal parameters as well as urinalysis were normal. Capillary blood gas analysis confirmed moderate hypoxia and respiratory alkalosis due to hyperventilation.

Microbiology

Gram and acid-fast stains of bronchoalveolar lavage (BAL) fluid were negative. A Legionella-genus specific PCR detected L. longbeachae DNA in the BAL fluid within 18 h. Colonies typical for Legionella grew on a Legionella medium (Legionella-BCYE; Becton Dickinson) after several days of incubation, and were identified as L. longbeachae by partial sequencing of the 16S rRNA gene. Legionella urine antigen enzyme immunoassay (Biotest) tested negative. Cultures for other bacteria (including mycobacteria), fungi and respiratory viruses were negative. All blood cultures remained negative. On the basis of these results, we made a definitive diagnosis of L. longbeachae pneumonia.

Management and clinical course

During initial antibiotic therapy with intravenous piperacil-lin/tazobactam for 24 h, the clinical symptoms worsened markedly. Identification of L. longbeachae in BAL fluid prompted a change of antibiotic therapy to intravenous moxifloxacin. The patient recovered quickly and was switched to oral moxifloxacin for a total of 12 days. Thrombocytopenia markedly improved as the patient recovered.