

Pulmonary puzzle

A 63-year-old male with marked eosinophilia and dyspnoea on exertion

CLINICAL PRESENTATION
A 63-year-old male farmer presented marked eosinophilia. He had no symptoms of fever, night sweats or weight loss and no signs of anaemia, jaundice or lymphadenopathy. The leucocyte count was 17.27×10^9/l, with 53.1% eosinophils, but no eggs or parasites were found in his faeces. Blood chemistry results were within normal limits except for an elevated alanine aminotransferase level of 77 U/l. Serum total immunoglobulin E (IgE) was high at 340 kU/l. Specific IgG antibodies to Taenia solium, Paragonimus westermani, Schistosoma japonicum and Clonorchis sinensis were negative. The patient's first absolute eosinophil count during his hospitalisation was 27.25×10^9/l. Both a chest CT scan and an echocardiograph were normal. A contrast-enhanced CT scan of the liver showed multiple, small, ill-defined, round, low-attenuating nodules with hepatomegaly. There was no evidence of lymphadenopathy on both a chest and abdominal CT scan. Bone marrow specimens revealed normocellular marrow with marked eosinophilia and no evidence of eosinophilic leukaemia. His eosinophilic IgG increased to 46.32×10^9/l, so he was treated with prednisolone at 1 mg/kg/day. The pronounced eosinophilia improved and he was discharged. We tapered the dose of prednisolone to 0.8 mg/kg/day over 3 months and his eosinophil counts returned to normal at 0.02×10^9/l.

Four months later, he was admitted again with dyspnoea on exertion and hypoxaemia. The lower lungs exhibited fine bilateral crackles. The leucocyte count was 13.39×10^9/l with 0.7% eosinophils (0.10×10^9/l). A chest radiograph showed peripheral reticulonodular opacities in both lungs. A high-resolution CT showed fine reticulation and irregular linear opacity with predominant subpleural distribution (fig 1). Pulmonary function tests showed a reduction in diffusing capacity (35% predicted).


Figure 1 High-resolution CT through the lower lung zone on 11 February 2005. The scan shows bilateral irregular linear opacity with predominant subpleural distribution.

QUESTION
What questions might you ask the farmer?
See page 777 for the answer.

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