An unusual presentation of giant cell arteritis

Introduction

Giant cell arteritis is often associated with constitutional symptoms, headache and visual disturbances. Respiratory symptoms as a first presentation are infrequent. Large vessel vasculitides should be a differential of persistent cough with evidence of a chronic inflammatory process in the presence of normal chest radiography, pulmonary function and bronchoscopy.

Discussion

This case report is the first to describe giant cell arteritis with predominant respiratory symptoms in the presence of a lymphocytic alveolitis and thoracic aortitis. Dry cough can be a feature of giant cell arteritis, but less than 5% of cases present with respiratory symptoms and both pulmonary function tests and bronchoscopy are often normal (Blockmans et al, 1999; Karagiannis et al, 2006). There has been only one other report of lymphocytic alveolitis in giant cell arteritis where respiratory symptoms were predominant (Karagiannis et al, 2006).

The aetiology of the cough is unknown but theories include pulmonary vasculitis stimulating parenchymal cough centres and a state of heightened airway irritability (Karagiannis et al, 2006; Tavora and Burke, 2006). In this case vasculitic changes were not detected on bronchial biopsy so steroid-responsive airway irritability as a result of chronic inflammation may be the cause.

A knowledge of the diverse presentations of giant cell arteritis is vital as the symptoms can be disabling therefore establishing the diagnosis at an early stage can prevent further morbidity. In patients presenting with respiratory symptoms in suspected cases of vasculitis, the authors suggest that bronchoscopy and more importantly bronchoalveolar lavage and biopsies are performed. Further research is required to expand the documented evidence for an association between giant cell arteritis and lymphocytic alveolitis. BJHM

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Blockmans D, Knockaert D, Bobbaers H (1999) Giant cell arteritis can be associated with T4-lymphocytic alveolitis. *Clin Rheumatol* **18:** 330–3

Karagiannis A, Mathiopoulou L, Tziomalos K et al (2006) Dry cough as first manifestation of giant-cell arteritis. *J Am Geriatr Soc* **54**(12): 1957–8

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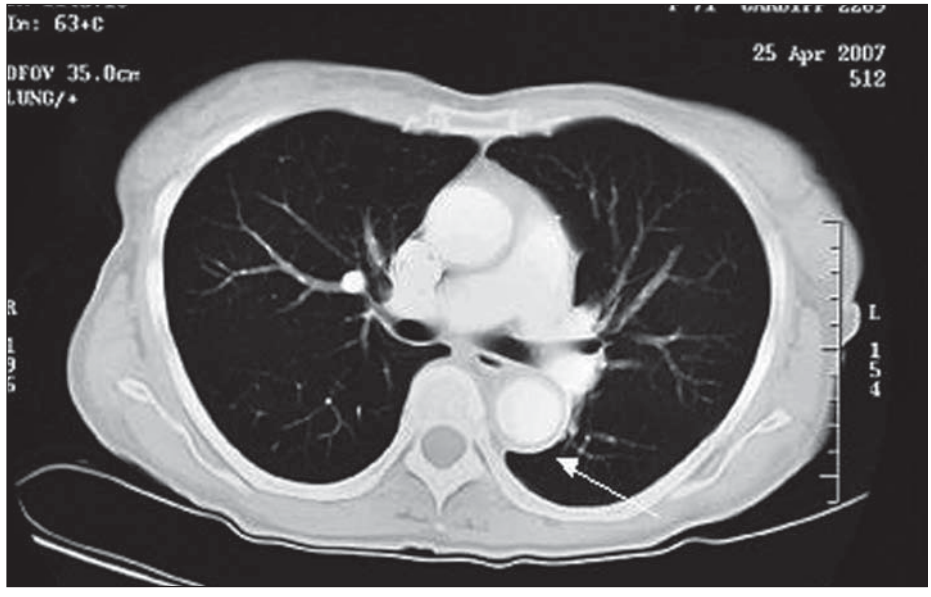
Figure 1. Computed tomography scan of the thorax highlighting a thoracic aortitis (arrow).



Case Report

A 72-year-old woman presented with a 6-month history of dry, persistent cough after visiting a deer park. Initially a transient rash developed on the ankles and spread proximally. This was associated with malaise, weight loss and arthralgia which all quickly resolved. Examination revealed a right carotid bruit, impalpable left brachial artery and reduced left radial and dorsalis pedis pulses. The blood pressure was 120/80 mmHg in the right arm but unrecordable in the left. Respiratory examination was unremarkable. Temporal arteries were impalpable and non-tender; fundoscopy was normal.

Borellia burgdorferi serology was negative. The haemoglobin was 10.2 g/litre (normal range 12.0–15.1 g/litre), mean corpuscular volume was 79.8 fl (normal range 80.0–99.0 fl) and platelets were 634x10^9/litre (normal range 130–475x10^9/litre); white cell count was minimally elevated at 11.3x10^9/litre (normal range 4.0–11.0x10^9/litre). Erythrocyte sedimentation rate was 100 mm/hr (normal range 0–35 mm/hr) and C-reactive protein 140 mg/litre (normal range <6 mg/litre). Lung function tests and chest radiography were normal.

Computed tomography pulmonary angiography detected a descending aortitis (*Figure 1*).

The Venereal Disease Research Laboratory (VDRL) enzyme-linked immunosorbent assay (ELISA) for IgG for *Treponema pallidum* was negative and a white cell scan identified normal uptake within the aorta, excluding syphilis. Bronchoscopy was grossly normal. Bronchoalveolar lavage showed a differential cell count of 75% macrophages, 24.9% lymphocytes and less than 1% of both neutrophils and eosinophils, indicative of a lymphocytic alveolitis. A transbronchial biopsy identified non-specific chronic inflammatory changes; granuloma and changes of vasculitis were absent. Stains for fungi, pneumocystis, legionella and acid-fast bacilli were negative. Temporal artery biopsy identified chronic inflammation with occasional giant cells. Giant cell arteritis with descending thoracic aortitis and lymphocytic alveolitis was diagnosed. A complete resolution of the cough occurred within a week of starting high-dose steroids.