

# Abnormal chest X-ray in a patient with mononeuritis multiplex

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## CASE REPORT

A 74-year-old man with a medical history of hypertension, polymyalgia rheumatica (PMR) and steroid-induced diabetes mellitus, visited our outpatient clinic in 2000 (at the age of 65) with mononeuritis multiplex of the legs. Laboratory analysis showed elevated inflammation parameters (erythrocyte sedimentation rate (ESR) 118 mm after one hour, C-reactive protein 99 mg/l) and normocytic anaemia (haemoglobin

6.4 mmol/l). Chest X-ray was normal besides an elongated aorta. Later chest X-rays, from 2004 onwards, were abnormal (*figures 1 and 2*).

## WHAT IS YOUR DIAGNOSIS?

See page 92 for the answer to this photo quiz.

Figure 1. Chest X-ray of the patient in 2004

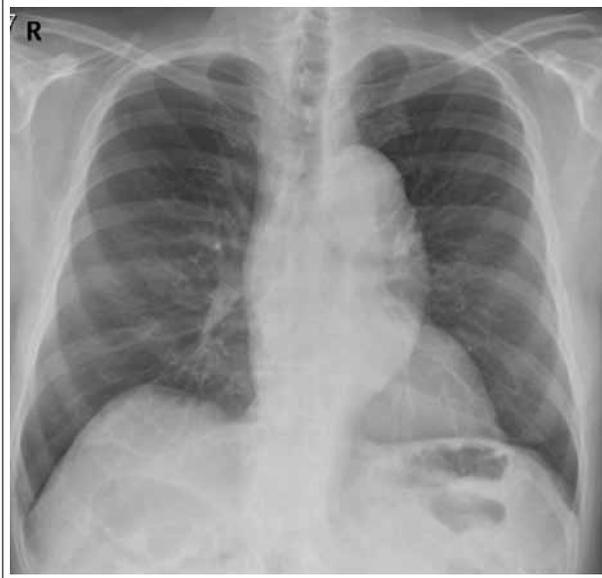
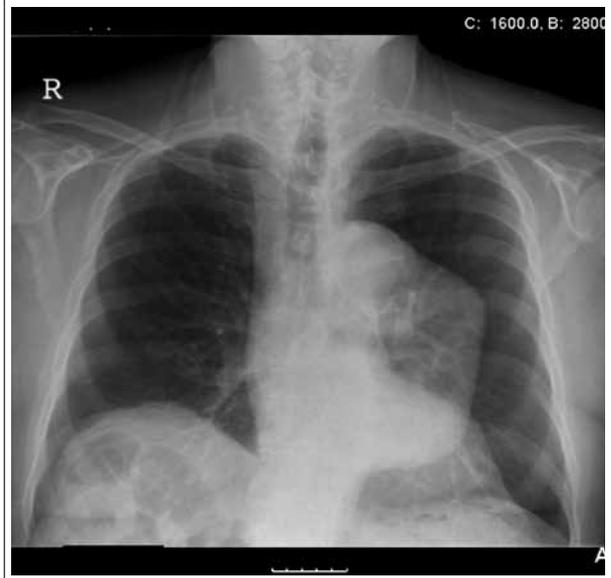


Figure 2. Chest X-ray in 2008



## DIAGNOSIS

Biopsy of the sural nerve showed vasculitis and axonal degeneration. Biopsy of the temporal artery showed disruption of the lamina elastica, indicating arteritis. The diagnosis giant cell arteritis (GCA) was made and treatment with high-dose prednisolone was started. In 2004, computed tomography scan of the abdomen revealed an aneurysm of the thoracic aorta, maximum diameter 41 mm. The aneurysm was followed up yearly and treated by endovascular surgery in 2008 (maximum diameter 56 mm).

GCA typically occurs in patients older than 50 years, who present with new headache and increased ESR. Other symptoms of vasculitis may occur, as in this case mononeuritis multiplex of the legs. GCA can occur as a separate disease, or in a spectrum with PMR. Temporal artery biopsy is the gold standard for diagnosis. It is important to keep in mind that the disease affects large- and medium-sized arteries, especially the proximal aorta and its branches. Aneurysms of the thoracic aorta can develop years after onset of the disease as a late complication, and are 17 times more common in patients

with giant-cell arteritis compared with the normal population.<sup>1</sup> The optimal frequency and imaging modality for monitoring and follow-up of aortic aneurysms in GCA have yet to be determined. Bongartz and Matteson suggest yearly abdominal ultrasound, chest X-ray and transthoracic echo. However, for 'high-risk patients', they suggest CT or MRI angiography at the time of diagnosis and after one year, followed by yearly abdominal ultrasound, chest X-ray and transthoracic echo.<sup>2</sup> The authors have defined high-risk patients as those with aortic insufficiency murmur, or PMR with ESR >100 mm/h, or at least two of the following: hypertension, hyperlipidaemia, PMR, coronary artery disease.

## REFERENCES

1. Salvarani C, Cantini F, Hunder GG. Polymyalgia rheumatica and giant-cell arteritis. *Lancet*. 2008;372:234-45.
2. Bongartz T, Matteson EL. Large-vessel involvement in giant cell arteritis. *Curr Opin Rheumatol*. 2006;18:10-7.