infiltration and hilar lymphadenopathy with which they are associated can lead to a mistaken diagnosis of malignant disease. This can result in unnecessarily extensive resection being performed with serious implications in a young child. The importance of performing a chest X-ray in a child presenting with a history of increased cough and dyspnoea on exertion is well illustrated, and might have been performed at an earlier stage in this case. Both Xray and CT scan usually show a solitary peripherally placed parenchymal mass with regular or irregular margins, with or without calcifications and occasional cavitation.7 Fineneedle aspiration cytology may be helpful,8 but complete exclusion of malignancy requires surgical biopsy. When endobronchial in position, as in this case, the tumours are readily accessible to endoscopic biopsy.

Although a variable tumour response to both corticosteroids and radiotherapy has been reported, the mainstay of treatment is by complete surgical excision to remove the destructive lesion, exclude malignancy and prevent recurrence. If this can be achieved

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### Inflammatory pseudotumours

- commonest type of benign pulmonary tumour in the paediatric population
- usually occur as solitary peripheral lesions, giving rise to a variety of respiratory symptoms
- rarely endobronchial in position may be locally invasive, mimicking malignant
- disease

then the long-term prognosis is excellent. Early diagnosis before significant local invasion has occurred enables a more conservative approach. This in turn relies on an increased awareness of these lesions presenting with common respiratory symptoms.

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## Pneumonitis induced by sulphasalazine

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#### Summary

We describe a 65-year-old woman with eosinophilic pneumonitis induced by sulphasalazine. Laboratory findings revealed peripheral eosinophilia. The chest X-ray showed bilateral infiltrations, which disappeared after sulphasalazine was discontinued.

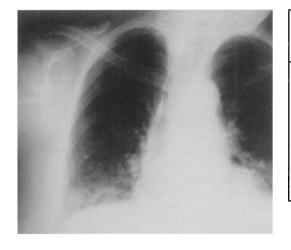
Keywords: sulphasalazine, rheumatoid arthritis, eosinophilic pneumonitis

Sulphasalazine is used in the treatment of rheumatoid arthritis and chronic inflammatory bowel disease.<sup>1</sup> Between 20% and 30% of treated patients exhibit adverse reactions (box).<sup>2,3</sup> We present a patient with pneumonitis as an unusual adverse effect of sulphasalazine.

#### Case report

A 65-year-old woman was admitted because of progressive dyspnoea, nonproductive cough, high fever and headache. Her medical history revealed rheumatoid arthritis which had been treated by sulphasalazine (2 g daily) for the last six months. Arthritic signs were presently absent and the patient denied using other drugs. There was no history of chronic obstructive pulmonary disease, smoking or allergic reactions to drugs. On examination the patient was dyspnoeic. Her body temperature was 39°C. Crackles were heard at the lower zones of both lungs. Further examination was negative. Laboratory investigation revealed elevated erythrocyte sedimentation rate (84 mm after 1 h) and peripheral eosinophilia (15%). Haemoglobin, leucocytes and platelet counts, capillary blood gas analysis,

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# Adverse drug reactions leading to withdrawal of sulphasalazine (n=774). From <sup>2</sup>

19.0%
4.8%
1.0%
0.8%
0.2%
0.2%
0.1%
0.1%
0.1%

Figure Chest X-ray showing bilateral infiltrations induced by sulphasalazine

liver function tests and atypical pneumonia test were normal. A chest X-ray revealed diffuse interstitial infiltration of both lungs, especially in the lower lobes (figure). Blood, sputum, and urine cultures for bacteria and fungi were negative. Serologic tests were also negative. Fibre-optic bronchoscopy showed no endobronchial abnormalities and Ziehl-Neelsen and cultures of a bronchial lavage were also negative. The diagnosis of sulphasalazineinduced pneumonitis was considered because of the presence of peripheral eosinophilia, and the negative results of bacteriologic and serologic tests. Sulphasalazine was discontinued and the patient improved. Fever disappeared in two days and dyspnoea gradually diminished. Six weeks after stopping treatment, the chest X-ray was completely normal.

#### Discussion

Only 15 cases of pulmonary complications induced by sulphasalazine have been re-

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ported.<sup>4-7</sup> Most of them suffered from inflammatory bowel disease. Since 1989, only two such patients have been reported to the Dutch Committee of Adverse Drug Reactions.

There are two distinct patterns of pulmonary damage. The more common is eosinophilic pneumonia, typically accompanied by a peripheral eosinophilia. (If peripheral eosinophilia is absent, material obtained by bronchial lavage or lung biopsy may distinguish between the two conditions.) The other is fibrosing alveolitis.

The pathophysiology of the sulphasalazineinduced eosinophilic pneumonia is unknown,<sup>1</sup> but prognosis is generally good after discontinuation of the drug.<sup>4</sup> The prognosis of fibrosing alveolitis is less good and steroids are often needed to achieve healing.

Sulphasalazine is a commonly used drug that is rarely associated with pulmonary damage, which may be confused with underlying pulmonary disease due to rheumatoid arthritis. The possibility of drug-induced pulmonary disease should be considered in any patient receiving sulphasalazine showing symptoms and radiographic evidence of pulmonary disease.

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