Diagnostic challenge of a complication of pneumoconiosis

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DESCRIPTION

This 68-year-old man was followed up in the rheumatology clinic for his new onset rheumatoid arthritis. He is an ex-smoker with known 15% pneumoconiosis having worked in a coal mine for 30 years. He had a routine chest X-ray (CXR) prior to starting methotrexate which showed a 5 cm nodule in the right upper lobe with multiple bilateral smaller nodules (figure 1). A CT scan of his chest suggested primary lung malignancy with intrapulmonary metastatic dissemination (figure 2). He was referred on for a biopsy which was in keeping with progressive massive fibrosis on a background of pneumoconiosis. In view of his fibrosis, he was not started on methotrexate but did start on sulfasalazine.

Coal worker's pneumoconiosis is a preventable disease and working conditions are strictly controlled under The Coal Mines (Control of Inhalable Dust) Regulations 2007.¹ It therefore entitles the patient to compensation through the Pneumoconiosis etc (Worker's Compensation) Act 1979.² They should be followed up with at least 5 yearly CXRs to monitor for complications such as progressive massive fibrosis and malignancy. Caplan's syndrome is the combination of rheumatoid arthritis and pneumoconiosis and typically does change management of this palliative lung condition which is predominately supportive.

Figure 1 Chest X-ray showing a right upper lobe mass and bilateral nodules.

Figure 2 CT scan showing a lung mass suggestive of primary lung malignancy with intrapulmonary metastatic dissemination.

Learning points

- ▶ Patients with pneumoconiosis are at risk of developing progressive massive fibrosis and, especially when combined with smoking, lung cancer.
- ▶ Progressive massive fibrosis and lung cancer can be difficult to differentiate clinically and a biopsy is often needed for a histological diagnosis.
- ▶ Nodules in the patient with pneumoconiosis and rheumatoid arthritis should alert the physician to the possibility of Caplan's syndrome.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned, externally peer reviewed.

REFERENCES

- 1 The Coal Mines (Control of Inhalable Dust) Regulations 2007. UK: Her Majesty's Stationery Office (HMSO). <http://www.legislation.gov.uk/uksi/2007/1894/contents/made> (accessed 21 Jun 2013).
- 2 Pneumoconiosis etc. (Worker's Compensation) Act 1979. UK: Her Majesty's Stationery Office (HMSO). <http://www.legislation.gov.uk/ukpga/1979/41/contents> (accessed 21 Jun 2013).

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