New pulmonary nodules in a patient with rheumatoid arthritis

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DESCRIPTION

A 35-year-old male with a history of rheumatoid arthritis and rheumatoid pulmonary nodules and Graves' disease was admitted to the hospital due to new onset fever, worsening dyspnoea and cough. Laboratory workup showed leukocytosis, haematuria, elevated erythrocyte sedimentation rate and cytoplasmic antineutrophil cytoplasmic antibodies. CT of the chest showed an increase in the size and number of lung masses (figure 1) compared to imaging performed 2 years prior, and a new air-fluid level mass in the apical area of the right lung (figure 2). Bronchoscopy with bronchoalveolar lavage demonstrated mild interstitial pneumonitis, fibrosis and positive cultures for *Streptococcus pneumoniae*. Transbronchial biopsy showed granulomatous vasculitis. The patient improved after receiving a high dose of methylprednisolone, and levofloxacin. He was discharged home on a maintenance prednisone and levofloxacin.

The presence of pulmonary nodules with cavitation requires a thorough workup to establish a primary diagnosis.¹ Differential diagnosis includes tuberculosis and other bacterial disease such as nocardiosis, fungal infections such as aspergillosis, granulomatosis with polyangiitis and other autoimmune diseases and malignancy (particularly squamous cell cancer lung cancer). Lung biopsy

Figure 2 Bilateral pulmonary nodules and air fluid level mass in the right apical area.

may be required to establish a definitive diagnosis. Granulomatosis with polyangiitis is the most common autoimmune disorder presenting with cavitary pulmonary lesions.²

Learning points

- ▶ Rheumatoid lung nodules do not usually cavitate and are typically asymptomatic.
- ▶ The presence of multiple pulmonary nodules with cavitation should include granulomatosis with polyangiitis in the diagnostic workup.
- ▶ Lung biopsy may be needed to establish a diagnosis.

Competing interests None.

Patient consent Obtained.

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Figure 1 Bilateral pulmonary nodules.

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