Pulmonary cryptococcosis mimicking solitary lung cancer in an immunocompetent patient

A 48-year-old Chinese male henhouse keeper was admitted with dyspnoea. A plain chest radiograph and CT scan indicated a solitary right lung mass with

Learning points

- Pulmonary cryptococcus can present as a malignant mass with positive accumulation on the FDG-PET scan.
- Antifungal drugs may be an appropriate treatment without surgical intervention.

invasion to the trachea (fig 1A and B). Positron emission tomography with ^{18}F -fluoro-2-deoxy-D-glucose (FDG-PET) showed accumulation in the lung mass (fig 1C). A transbronchial biopsy specimen provided a pathological diagnosis of pulmonary cryptococcosis (fig 2). There were no malignant cells in the specimen. A fungus culture grew *Cryptococcus neoformans*, but a study of the cerebrospinal fluid showed no evidence of cryptococcal meningitis. A serum HIV test was negative. The patient was treated with oral itraconazole 400 mg/day for 1 year without surgical intervention. A CT scan of the thorax after 2 years showed no evidence of the pulmonary lesion.

DISCUSSION

The high-resolution CT characteristics of pulmonary cryptococcosis in immunocompetent patients are multiple nodules and solitary nodules.¹ FDG-PET is a relatively new imaging modality that facilitates the distinction between benign and malignant lesions, but some reports show accumulation on chronic inflammation.²

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Figure 1 (A) Chest radiograph and (B) CT scan showing a solitary mass over the right upper lung area. (C) FDG-PET scan showing positive accumulation in the solitary mass.

Figure 2 Microscopic examination of the lung tissue showing pulmonary cryptococcosis (arrow). HE, haematoxylin-eosin stain; GMS, Gomori methenamine silver stain.