

Images in...

A lung mass: when the history helps the diagnosis

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DESCRIPTION

A 7-years-old boy was referred to our hospital because of a large left upper para-mediastinal mass at x-rays (figure 1A) with the suspicion of lymphoma. He had no respiratory symptoms, auscultation was normal. High-resolution CT showed a large consolidated mass (4x3.5 cm x 7.4 cm) in the left upper pulmonary lobe, of lung origin as two

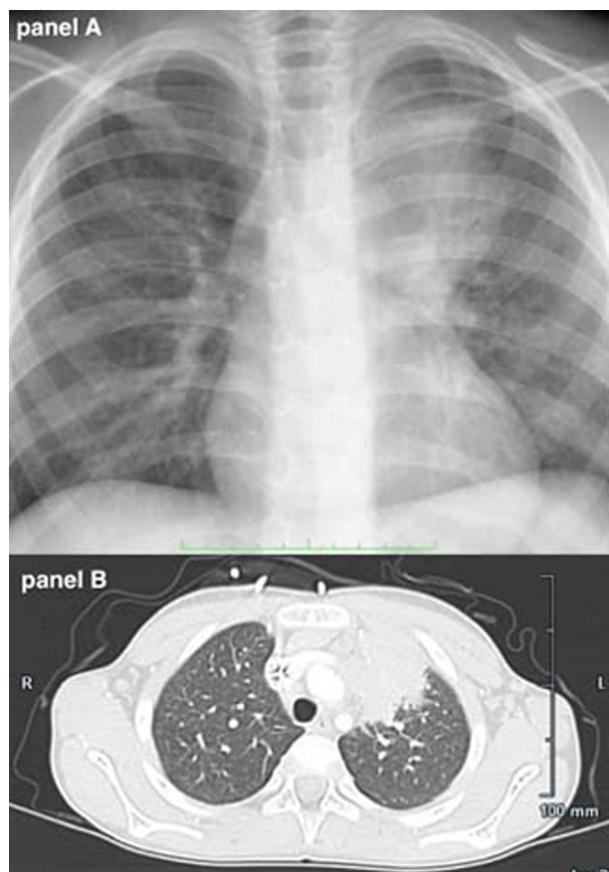


Figure 1 X-rays showing a left upper para-mediastinal mass (A). At high-resolution CT scan the same consolidated mass, with two bronchial branches in its context (B).

bronchial branches (figure 1B). At admission the boy was on full anti-tuberculosis (TBC) treatment. Two months earlier he had had a third episode of suppurative laterocervical adenitis, with histological finding of granulomas, isolation of *Staphylococcus aureus* from culture and a weak positive Mantoux. The boy had received BCG at birth. A careful history revealed three episodes of laterocervical adenitis, all characterised by *S.aureus* isolation, and two episodes of osteomyelitis. The first episode of osteomyelitis involved the second finger of the left hand, while the second episode the third right toe. Recurrence of staphylococcal adenitis, histological granulomatous aspect, no response to TBC treatment, osteomyelitis of small bones of hands and feet, male sex were all suggestive of chronic granulomatous disease (CGD).¹ Nitroblue-tetrazolium test confirmed CGD. Given this diagnosis, our first hypothesis was pulmonary Aspergillosis as *Aspergillus* is the most frequently isolated organism in CGD patients.^{2 3} *Aspergillus fumigatus* was isolated from the hypopharyngeal culture confirming the diagnosis. Voriconazole was started leading to volumetric reduction of the aspergilloma which was later removed surgically. Histological examination showed fungal hyphae in the context of the removed mass.

Our patient has undergone a successful bone marrow transplantation and he is now on no treatment. Diagnosis of pulmonary aspergillosis remains difficult in that clinical manifestations are not specific and radiologic findings can be suggestive but none are pathognomonic.⁴ However, it should be always suspected in case of a consolidated mass in a CGD patient.

Competing interests None.

Patient consent Obtained.

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