

Pulmonary actinomycosis: a clinical surprise!

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DESCRIPTION

A 65 year-old man with diabetes presented with a brief febrile illness, extreme debility and respiratory distress. X-ray chest showed a right lower lobe consolidation. A clinical diagnosis of severe community-acquired pneumonia was made for which he required antibiotics, non-invasive ventilatory support and admission to intensive care for a week. Nasopharyngeal swab was positive for influenza A by real-time PCR. The patient made apparent clinical recovery but a persisting right lower zone infiltrate. At follow-up as an outpatient 2 weeks later, he was stable haemodynamically but continued to have low-grade fever, mild hypoxia and a weight loss of 14 kg since illness onset. He was edentulous but had good oral hygiene. Chest X-ray (figure 1) and CT showed dense consolidation in the right lower lobe. Bronchoalveolar lavage showed non-acid fast, Gram positive, branching, filamentous bacteria, identified as actinomycetes in culture on blood agar (figure 2), while other stains and cultures were negative. Speciation of the organism was not achieved. Treatment was with intravenous ampicillin that was switched to oral dose after 1 week. Follow-up at 2 months after discharge showed marked clinical and radiological resolution.

Pulmonary actinomycosis can be a difficult condition to diagnose with delayed diagnosis or misdiagnosis being common.¹ Isolated pulmonary involvement is rare. Diagnosis of actinomycosis hinges on clinicomicrobiological correlation and response to specific treatment. Viral illness and

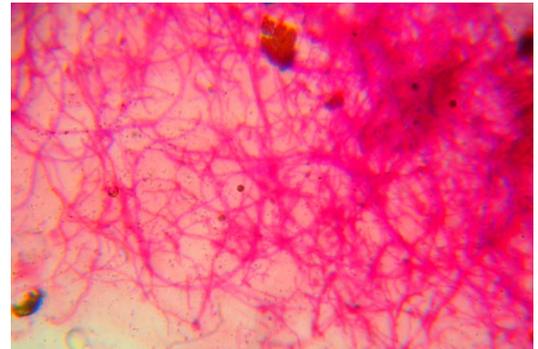


Figure 2 Bronchoalveolar lavage showed non-acid fast, Gram positive, branching, filamentous bacteria, identified as actinomycetes in culture on blood agar.

diabetes are not known to predispose to this infection; however, pathogenesis is linked to the disruption of mucosal barrier and aspiration. Actinomycosis as a cause for non-resolving pneumonia in an otherwise immunocompetent patient was a clinical surprise.

Learning points

- ▶ Pulmonary actinomycosis although rare should still be included in the differential diagnosis of non-resolving pulmonary infections.
- ▶ Diagnosis will require clinical correlation with bronchoalveolar lavage or biopsy.

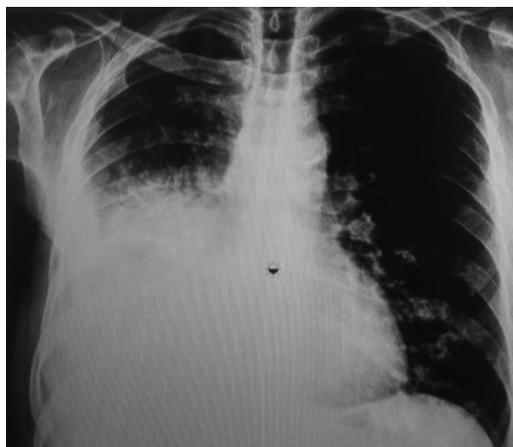


Figure 1 Chest X-ray showing dense consolidation in the right mid and lower zones.

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