

LUNG ABSCESS AS AN ATYPICAL MANIFESTATION OF INVASIVE NON-TYPHOIDAL SALMONELLA IN A HIGH-RISK HOST WITH MULTIPLE METABOLIC COMORBIDITIES

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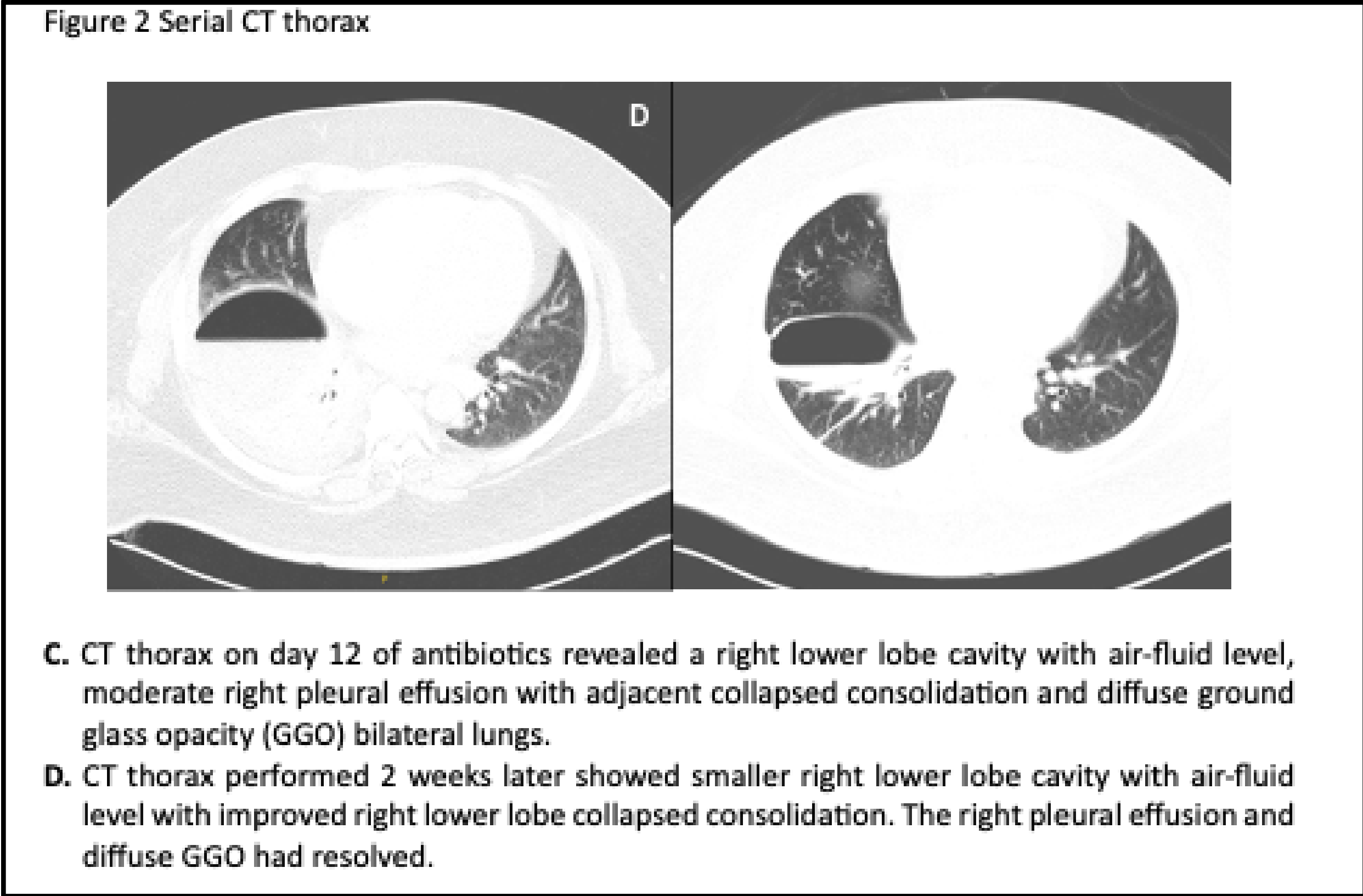
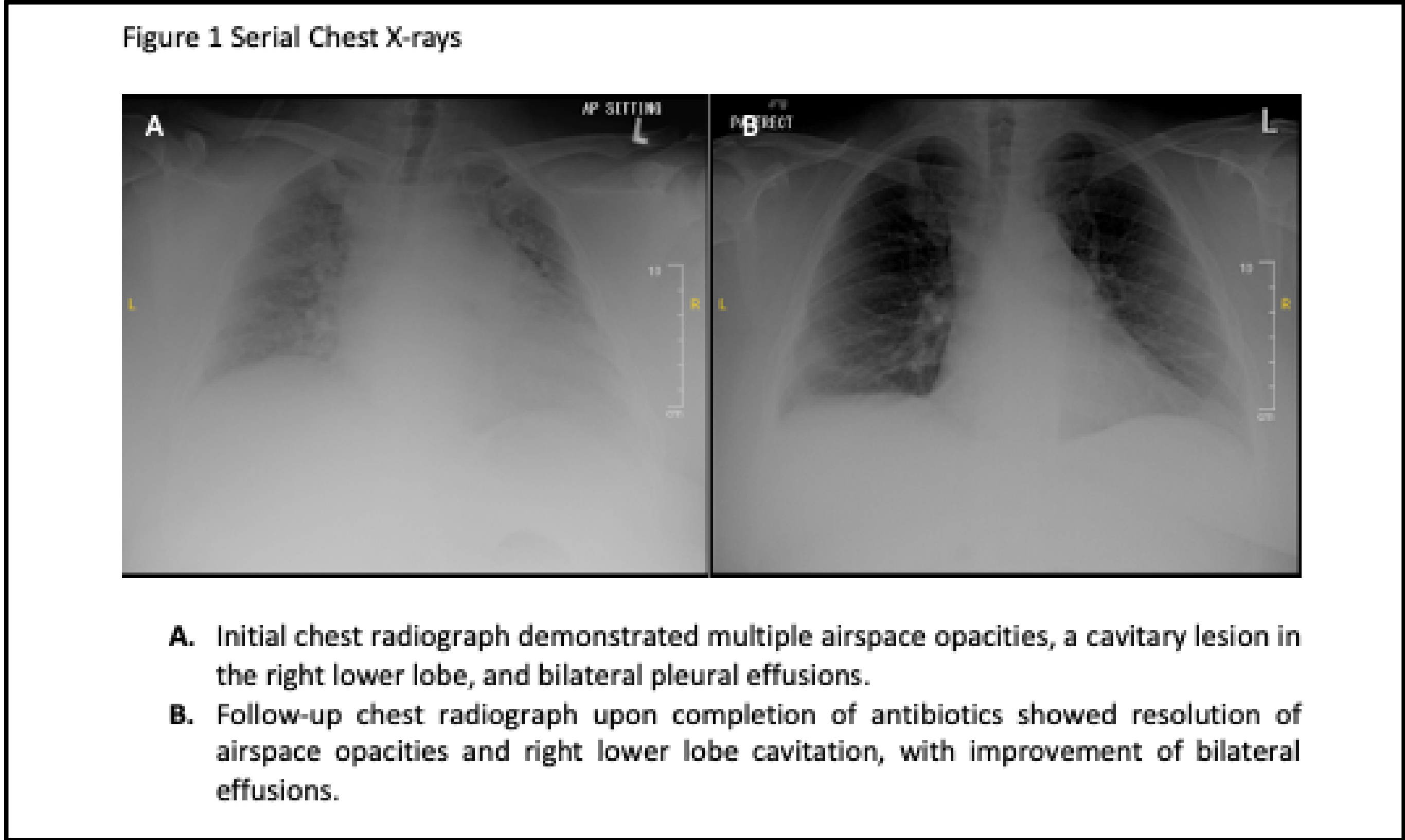
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INTRODUCTION

Invasive non-typhoidal Salmonella (iNTS) infections are uncommon in immunocompetent adults but may occur in those with underlying metabolic comorbidities. Lung abscess is a rare pulmonary manifestation of iNTS.

CASE PRESENTATION

A 39-year-old man with hypertension, class III obesity, and active smoking presented with acute breathlessness, two weeks of productive cough, and three days of diarrhoea. On arrival, he was severely tachypnoeic with SpO2 65% on room air. Arterial blood gas confirmed type 2 respiratory failure. He was started on non-invasive ventilation and admitted to ICU. Due to worsening CO2 retention, he was intubated and later developed a pneumothorax requiring chest tube insertion. Empirical intravenous ceftriaxone and azithromycin were initiated for severe pneumonia with ARDS. Blood cultures grew Salmonella group, sensitive to ceftriaxone, ciprofloxacin, ampicillin, and trimethoprim-sulfamethoxazole. CT thorax revealed a right lung abscess with mediastinal lymphadenopathy. IV ciprofloxacin was initiated but withheld due to suspected allergy; ceftriaxone was resumed. He was extubated on day six. On day eight, therapy was switched to oral trimethoprim-sulfamethoxazole, followed by successful ciprofloxacin rechallenge. Laboratory workup revealed newly diagnosed diabetes (HbA1c 6.5%). Full-body CT at week three (NTSVI score 2) excluded vascular involvement and showed regression of pulmonary lesions. He completed 51 days of antibiotics with clinical and radiological resolution.



CONCLUSION

This case underscores the importance of recognising metabolic and lifestyle-related vulnerabilities, such as undiagnosed diabetes, obesity, and smoking, in patients with invasive Salmonella infections presenting with atypical manifestations like lung abscess. Comprehensive risk assessment and tailored management strategies are critical to ensure timely recovery and prevent complications.