"Doctor, My Child is Still Coughing!" A Case Report of Bacteriologically Confirmed Pulmonary Tuberculosis in a Toddler

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Introduction

Pulmonary tuberculosis (PTB) in children often presents with nonspecific symptoms thereby making early diagnosis challenging, especially in the absence of a known contact history. Bacteriological confirmation is uncommon in this age group due to difficulties in specimen collection (1).

Case Report

We report a case of a 1 year 9 months old boy with a four-month history of intermittent dry cough beginning in November 2024. His mother also noted there was a history of intermittent fever but denied night sweats, poor feeding, or PTB contact. He was initially treated for presumed community-acquired pneumonia with oral Amoxicillin in February 2025. Despite treatment, his symptoms persisted. On examination, the child was active, alert, and not in respiratory distress. His weight was 9 kg and height 82 cm, which both were approaching -2SD, indicating failure to thrive. No lymphadenopathy or hepatosplenomegaly was detected. Lung examination was unremarkable.

Chest X-ray revealed heterogeneous opacities in the right middle and lower zones. Blood tests indicated iron deficiency anaemia with elevated erythrocyte sedimentation rate (ESR). Renal and liver profiles were normal. Given persistent symptoms and suspicious imaging, further investigations were pursued. Gastric lavage for Acid Fast Bacilli (AFB) was negative. However, GeneXpert testing of gastric lavage detected the *Mycobacterium tuberculosis* complex (MTBC), although the resistance status to Rifampicin and Isoniazid was indeterminate. A Line Probe Assay (LPA) and *Mycobacterium tuberculosis* culture were subsequently sent and are still pending. The tuberculin skin test measured 6 mm. Hence, the patient was diagnosed with bacteriologically confirmed PTB and referred to paediatric infectious disease physician for anti-TB therapy.

Paediatric PTB often presents nonspecifically, making diagnosis challenging (2). This case highlights the importance of clinical suspicion when symptoms persist despite antibiotic therapy. Failure to thrive, radiographic changes, and elevated ESR prompted further testing. While AFB was negative, GeneXpert on gastric lavage confirmed *Mycobacterium tuberculosis*, consistent with WHO recommendations for molecular diagnostics in children (3). Early referral and anti-TB initiation are crucial, especially in Malaysia as endemic areas. This case underscores the utility of GeneXpert in children and the need for prompt investigation when standard treatments fail (4). As a conclusion, this case emphasizes the importance of considering PTB in children with prolonged cough and failure to thrive especially in endemic settings. GeneXpert testing of gastric lavage proves to be a useful tool for diagnosis in young children, whose sputum collection is often unfeasible.

Keywords: Tuberculosis, gastric lavage, failure to thrive, iron deficiency

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