Tracheal bronchus and disseminated tuberculosis in a 9-year-old girl: incidental finding or association?

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DESCRIPTION

We present a 9-year-old girl, who had pain abdomen and weight loss for 3 months, followed by cough for 3 weeks and vomiting for 3 days. There was no history of abdominal distension, constipation, bone pain or bleeding from any site. There was no history of contact with tuberculosis. On examination, she was severely malnourished and pale. Systemic examination revealed doughy abdomen, hepatomegaly and fine crackles in the right mammary area. Initially, abdominal and pulmonary tuberculosis was considered. Her tuberculin skin test was negative, and sputum examinations were thrice negative for tuberculosis. HIV I/II serologies were negative. Chest radiography revealed inhomogeneous opacity in the right and the left upper zone. Abdominal ultrasonography revealed mild ileal loop thickening and appendiceal inflammation. Flexible fiberoptic videobronchoscopy revealed a right upper lobe bronchus arising proximal to the carina (figure 1A). It had three openings corresponding to the segments of the right upper lobe (figure 1B). The bronchus intermedius was present in the usual location of the right main bronchus. The left-sided bronchial anatomy was normal. Bronchoalveolar lavage fluid revealed tuberculosis bacilli confirming the diagnosis. Antituberculosis therapy resulted in resolution of symptoms.

Tracheal bronchus (pig bronchus) is a rare congenital anomaly, where the right upper lobe bronchus originates directly from the trachea rather than the right main bronchus.¹ The reported incidence is less than 2%.² It can be asymptomatic and diagnosed incidentally during bronchoscopy. Occasionally, it might present with symptoms like

Learning points

- ▶ Most of the cases of tracheal bronchus are asymptomatic and detected incidentally.
- ▶ Tracheal bronchus should be included in the differential diagnosis of a child presenting with right upper lobe pneumonia or collapse particularly with other congenital anomalies.

stridor or recurrent pneumonia. Recognising the tracheal bronchus during endotracheal intubation is important,³ because the endotracheal tube can obstruct the tracheal bronchus, causing collapse of the right upper lobe. Accidental intubation of the tracheal bronchus can cause pneumothorax and inadequate aeration of remaining part of the tracheobronchial tree. Flexible bronchoscopy helps in visualising the bronchial segments within the tracheal bronchus.³ In our index case, tracheal bronchus was detected incidentally by flexible bronchoscopy for the evaluation of tuberculosis. Hence, it is an incidental finding rather than an association with tuberculosis. Management of tracheal bronchus depends on the severity of the symptoms. In case of recurrent severe infections, resection of the anomalous bronchus and lobe is the treatment of choice.^{1,3}

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Figure 1 (A) Bronchoscopy revealing tracheal bronchus in the right side (arrow) and carina (C). (B) Tracheal bronchus revealing three divisions for the right upper lobe.

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