


A case of tracheobronchopathia osteochondroplastica

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Key message

Tracheobronchopathia osteochondroplastica (TO) is a disorder caused by the accumulation of calcium phosphate in the submucosa of large airways. Benign proliferation of bone and cartilage lead to the narrowing of airways. Bronchoscopy is the diagnostic test for TO. It shows characteristic smooth nodules emerging from tracheal rings that never involves the posterior membranous wall.

KEYWORDS

cavity, infection, right upper lobe, tracheobronchopathia osteochondroplastica

A man in his 50s, presented with a 2-year history of chronic cough with scanty expectoration and 5 kg weight loss over the previous 6 months. He denied any history of evening rise of temperature, fever, haemoptysis, chest pain, rash, joint pains or oral ulcers. He had been diagnosed with diabetes mellitus type II for the last 5 years but denied a history of tuberculosis, hypertension, pneumonia or asthma.

CT scan showed a 37 × 29 mm focus of consolidation in the posterior segment of the right upper lobe with areas of breakdown and fluid level with few enlarged right hilar and mediastinal lymph nodes. There were diffuse submucosal calcified nodules protruding from the anterolateral portion of the trachea with a lack of involvement of the posterior membranous portion of the trachea (Figure 1).

Fiberoptic bronchoscopy showed numerous protruding nodules, which resembled icicles with intact mucosa along the entire trachea except the post-membranous wall (Figure 1). Biopsy of the nodules showed lymphoplasmacytic infiltration of sub-epithelium and foci of

cartilage with nodular ossified tissue without any evidence of amyloidosis, granulomatous inflammation or malignancy (Figure 2).

The final diagnosis of Tracheobronchopathia osteochondroplastica was thus made.¹

The lung infection was due to uncontrolled diabetes and improved with antibiotics and tight glycaemic control with near total resolution of the abscess as shown in the repeat chest radiograph (Figure 3).

CONFLICT OF INTEREST STATEMENT

None declared.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained for the publication of this manuscript and accompanying images.

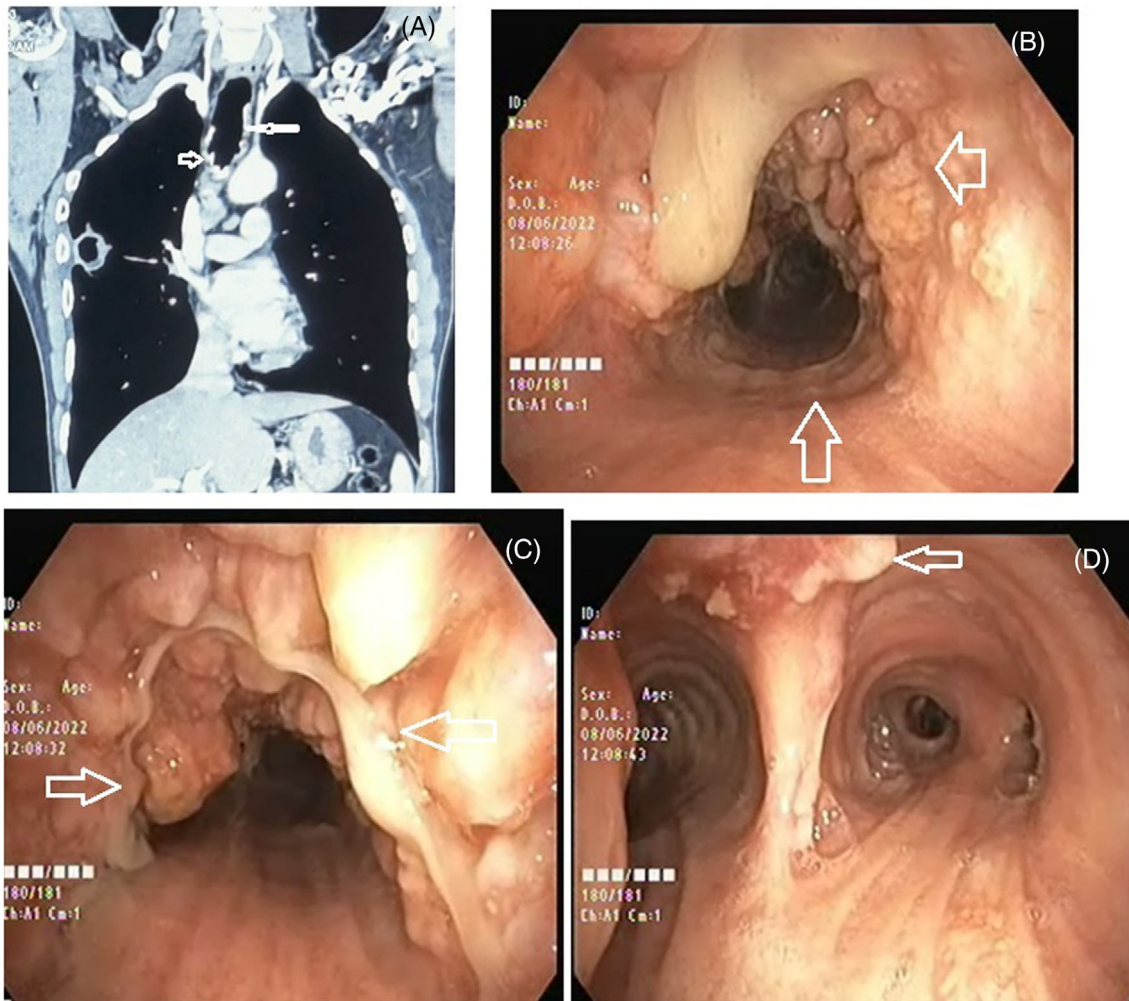


FIGURE 1 (A) Computed tomography scan coronal section showing calcification of trachea (arrow) with right upper lobe cavity. (B) Bronchoscopy image showing speculated nodules arising from anterior and lateral wall of trachea with relative sparing of posterior membranous wall of trachea. (arrow). (C) Bronchoscopy showing nodules on lateral wall of trachea (arrow). (D): Image showing relative sparing of bronchial tree beyond carina.

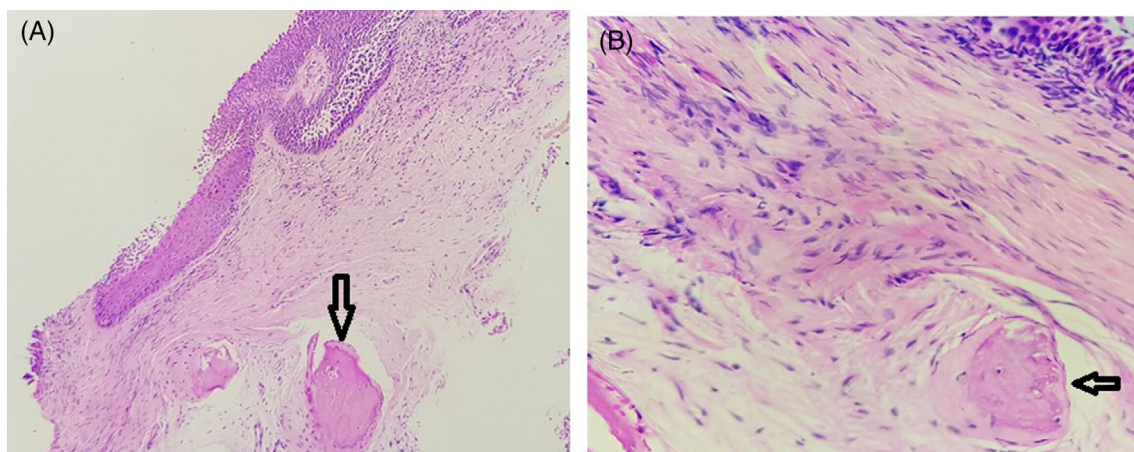


FIGURE 2 (A) (H & E 100 \times) sub epithelium showing foci of cartilage with nodular ossified tissue and lympho-plasmacytic infiltration. (B) (H&E: 400 \times): sub epithelium showing foci of cartilage with nodular ossified tissue and lympho-plasmacytic infiltration.

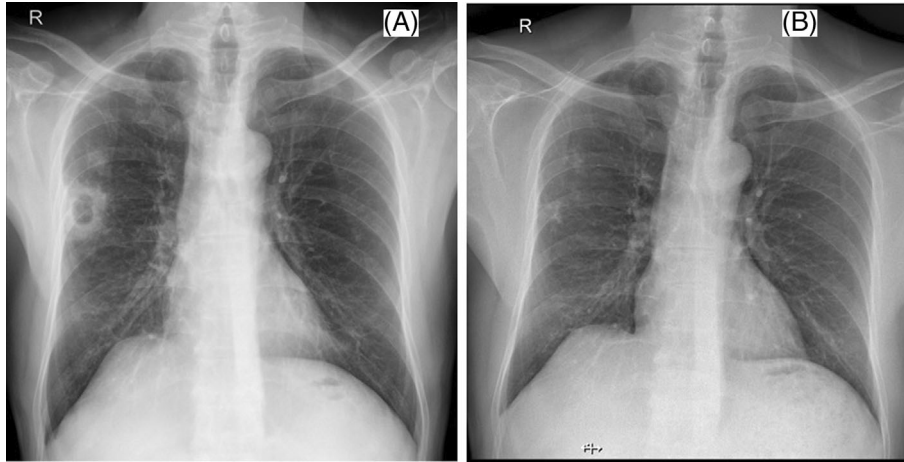


FIGURE 3 (A) Chest radiograph showing right middle zone cavity with fluid level and surrounding consolidation. (B) Post-treatment chest radiograph showing remnant fibrotic bands with near total resolution of the previous cavity.

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REFERENCE

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