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CLINICAL IMAGE

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Granulomatous tracheo-bronchitis from Crohn's disease

Amr J. Alwakeel[1,2] | **Stéphane Beaudoin**[2]

[1]Department of Medicine, Pulmonary Medicine Division, King Faisal Specialist Hospital and Research Centre - Jeddah, Jeddah, Saudi Arabia

[2]Department of Medicine, Respiratory Division, McGill University Health Centre, Montreal, Québec, Canada

Correspondence
Amr J. Alwakeel, Department of Medicine, Pulmonary Medicine Division, King Faisal Specialist Hospital and Research Centre - Jeddah, Jeddah, Saudi Arabia.
Email: amr.alwakeel@gmail.com

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Abstract

Tracheo-bronchitis is an uncommon but important extra-intestinal manifestation of Crohn's disease. Our case demonstrates radiological and bronchoscopic evidence of tracheo-bronchitis secondary to Crohn's disease with pathology-proven granulomatous inflammation. This case highlights the importance of investigating airway involvement in patients with Crohn's disease and new respiratory symptoms.

KEYWORDS
bronchoscopy and interventional techniques, Crohn's, granulomatous tracheobronchitis, inflammatory bowel disease, tracheobronchitis

CLINICAL IMAGE

A 55-year-old non-smoking women presented to the emergency with a 2-week history of cough, dyspnea, and odynophagia. She had recently been given mesalamine for a new diagnosis of Crohn's disease following a colonoscopy. CT chest showed diffuse circumferential thickening of the trachea (Figure 1) and proximal mainstem bronchi. Bronchoscopy showed normal vocal cords but 50% narrowing of the subglottic area with a diffuse mucosal cobblestone appearance in the trachea (Figure 2) and both main stem bronchi. Endobronchial biopsies revealed non-necrotizing granulomas with negative stains for micro-organisms. A diagnosis of granulomatous tracheo-bronchitis related to Crohn's disease was made. Inhaled corticosteroids and a tapering course of oral corticosteroids were prescribed, and azathioprine was started. Her symptoms resolved within weeks, and mucosal appearance normalized on repeat bronchoscopy 6 months later.

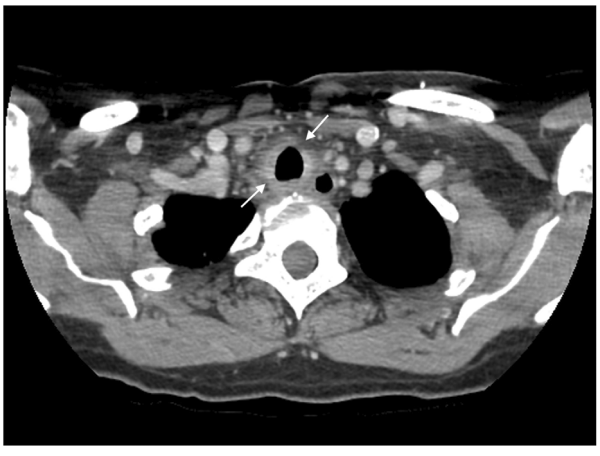

FIGURE 1 Axial chest CT image with arrows demonstrating circumferential thickening of the trachea

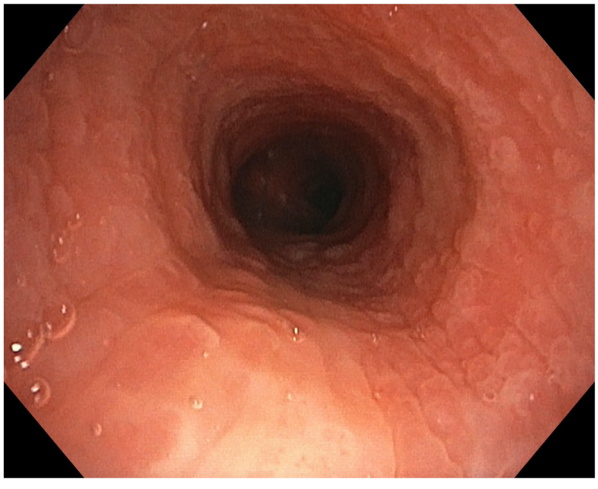

FIGURE 2 Bronchoscopic view of tracheal disease demonstrating diffuse mucosal cobblestone appearance

Granulomatous tracheo-bronchitis is an uncommon extra-intestinal manifestation of Crohn's and can occur independent of disease activity.[1] Patients usually present with dyspnea, cough, and dysphonia. Diagnosis can be made by radiological imaging and on bronchoscopy. Although the exact pathogenesis remains unclear, the mainstay of treatment includes inhaled and systemic steroids.[2] Delayed treatment can result in tracheal stenosis and airway compromise. As such, new respiratory symptoms in patients with Crohn's should prompt investigations for airway involvement.

AUTHOR CONTRIBUTIONS

All authors contributed to patient care, preparation of the manuscript and have read and approved the text.

CONFLICT OF INTEREST

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.

ORCID

Amr J. Alwakeel https://orcid.org/0000-0002-9300-7951

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