

# Varicella-zoster pneumonia with endobronchial lesions

Takuto Sueyasu  | Kazunori Tobino | Ryuta Yamamoto | Saori Nishizawa | Yuki Ko

Department of Respiratory Medicine, Iizuka Hospital, Iizuka, Japan

**Correspondence**Takuto Sueyasu, Department of Respiratory Medicine, Iizuka Hospital, 3-83, Yoshiomachi, Iizuka, Fukuoka, Japan.  
Email: t.sueyasu37@gmail.com**Associate Editor:** Coenraad Koegelenberg**Key message**

Varicella-zoster pneumonia with endobronchial lesions is rare. When immunosuppressed patients get skin lesions with systemic symptoms, the possibility of varicella-zoster virus infection of the respiratory tract should be kept in mind. In our case, the pulmonary lesions persisted for 15 months.

**KEYWORDS**

endobronchial lesions, immunodeficiency, varicella-zoster pneumonia

**CLINICAL IMAGE**

A 76-year-old woman, who was on methotrexate for rheumatoid arthritis, presented to the emergency room with fever, a generalized skin rash and acute dyspnoea. Her body was covered with blisters, some of which were crusted. Chest computed tomography revealed bilateral nodular and patchy ground-glass opacities with many nodules having a halo of ground-glass attenuation (Figure 1A). Bronchoscopy revealed white moss-like lesions of the trachea, left vocal cord and left main bronchus (Figure 1B–D). No pathogenic bacteria were detected on bronchoalveolar lavage culture. Paired varicella-zoster virus (VZV) sera revealed an IgM of 1.45 and 9.11, and an IgG of 12.0 and >128.0 on Days 2 and 14, respectively. A quantitative VZV-polymerase chain reaction assay of bronchoalveolar lavage fluid was positive ( $62 \times 10^5$  C/ml). The patient was treated with acyclovir for 7 days. Her general condition improved, and her skin rash crusted completely by Day 12. Her respiratory status improved, and the imaging findings improved over 15 months. VZV pneumonia with endobronchial lesions is uncommon.<sup>1,2</sup> Clinicians should consider the possibility of endobronchial VZV infection in immunosuppressed patients with suggestive skin lesions.

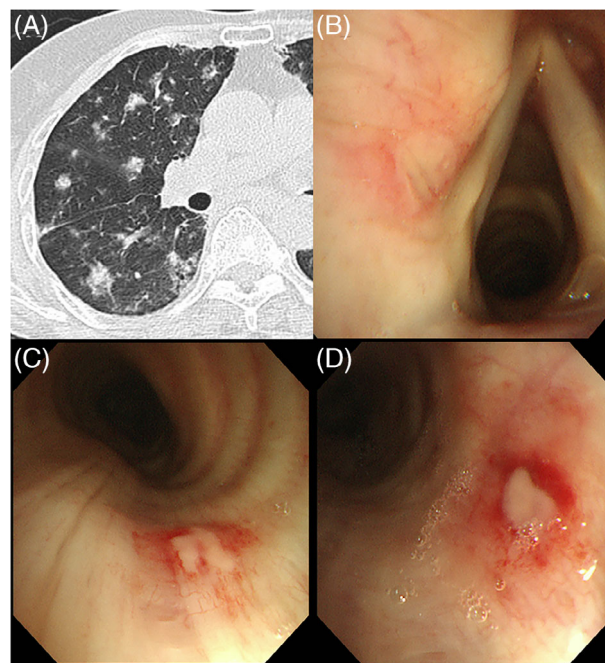
**CONFLICT OF INTEREST**

None declared.

**AUTHOR CONTRIBUTION**

Takuto Sueyasu contributed substantially to the writing of the manuscript. Kazunori Tobino, Ryuta Yamamoto, Saori

Nishizawa and Yuki Ko provided a substantial contribution to the critical review of this work. All authors have reviewed and approved the final version of the manuscript.



**FIGURE 1** Images of the lesions of the lung and respiratory tract. (A) High-resolution chest computed tomography showing bilateral nodular and patchy ground-glass opacities. Some of the nodules have a halo of ground-glass attenuation (computed tomography halo sign). (B–D) White moss-like lesions on the left vocal cords (B), trachea (C) and left main bronchus (D)

## ETHICS STATEMENT

Appropriate written informed consent was obtained for publication of this case report and accompanying images.

## ORCID

Takuto Sueyasu  <https://orcid.org/0000-0001-6084-051X>

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