

# A case of multiple squamous papillomas in the trachea treated by rigid bronchoscopy

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## Keywords

Endobronchial resection, intervention, multiple tracheal papillomas, rigid bronchoscope.

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## Clinical Image

Tracheal papilloma often presents as solitary or multiple lesions. It often recurs and sometimes transforms into a malignant tumour [1]. Published work suggests that respiratory papillomatosis is caused by human papillomavirus (HPV)-16/18 [2]. A 72-year-old woman presented with cough and difficulty breathing for a period of three months. She was treated with inhaled corticosteroids without improvement. A chest computed tomography scan revealed multiple nodules in the trachea (Fig. 1A). She was referred to our institution for a bronchoscopic intervention. Flexible bronchoscopy was performed under local anaesthesia and revealed many polypoid and cauliflower-like lesions, with a round surface and a small vessel, in the trachea. The largest lesion was disturbed by the patient's breathing (Fig. 1B, C). We resected parts of the lesions using electric snare and argon plasma coagulation (APC) but could not achieve a complete resection due to excessive coughing. After confirming the pathological diagnosis of HPV-16-positive squamous papillomas (Fig. 2A, B), we resected residual lesions by using the coring technique with a rigid bronchoscope and APC with a flexible

## Key message

Tracheal papilloma is a rare benign lung tumour. It often recurs and sometimes transforms into a malignant tumour. While historically radical resection has been the primary treatment, endobronchial resection, a less invasive procedure to manage the airway using a flexible and rigid bronchoscope, was effectively used in our patient.

bronchoscope, under general anaesthesia. Follow-up evaluations showed no signs of lesion recurrence for nine months (Fig. 2C).

## Disclosure Statement

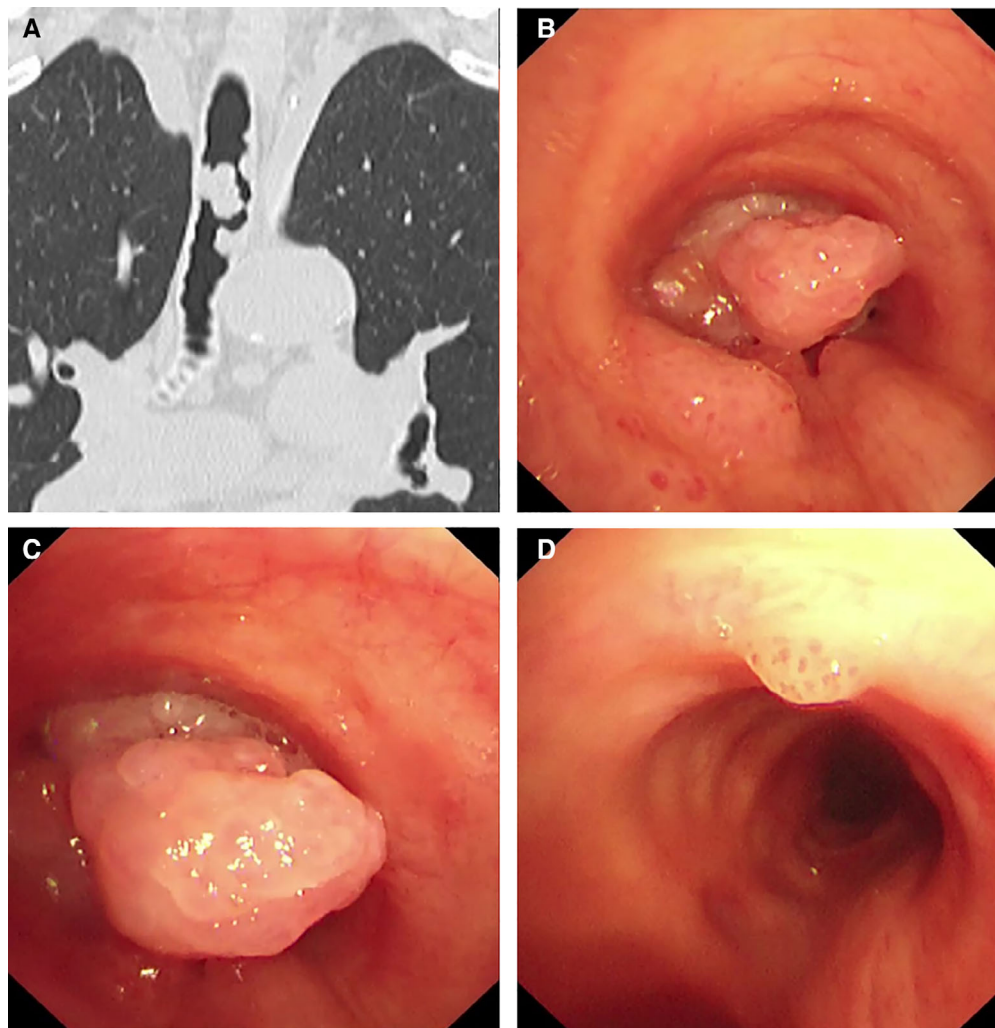
Appropriate written informed consent was obtained for publication of this case report and accompanying images.

## Acknowledgment

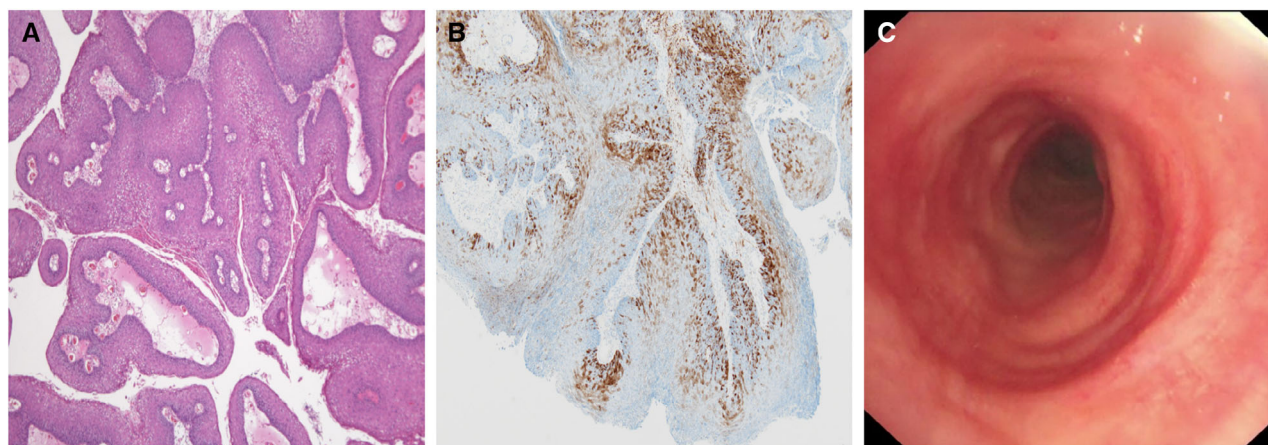
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## Author Contribution Statement

Atsushi Torii contributed substantially to the writing of the manuscript. Masahide Oki provided a substantial contribution to the critical review of this work and Rieko Nishimura contributed to the pathological diagnosis. All authors have reviewed and approved the final version of the manuscript.



**Figure 1.** (A) Chest computed tomography scan showing multiple lesions in the middle-to-lower portion of the trachea. (B) Bronchoscopy showing multiple lesions. (C) A large mass with a round and gloss surface and with stems and small dot vessels growing on the surface but no necrosis. (D) A lesion located close to the carina.



**Figure 2.** (A) Microscopic findings showing a squamous papilloma in which squamous epithelium was growing papillary in fibro-stroma (haematoxylin and eosin staining, 4x object lens magnification). (B) Immunohistochemistry of p16 protein (human papillomavirus (HPV)-16 positive). (C) Bronchoscopy confirming no recurrence of lesions, nine months after bronchoscopic treatment.

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