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【 PICTURES IN CLINICAL MEDICINE 】

Emerald Sign for Diagnosing Tracheobronchial Amyloidosis

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Key words: amyloidosis, autofluorescence bronchoscopy, flexible bronchoscopy, optical imaging

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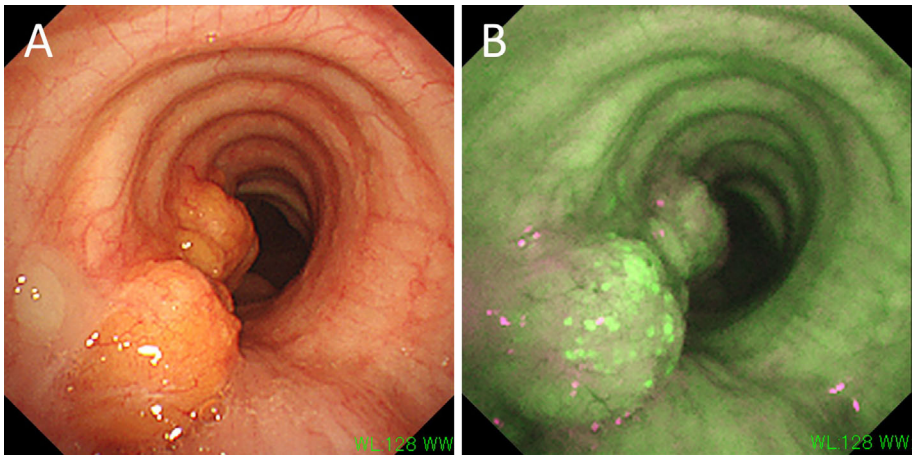
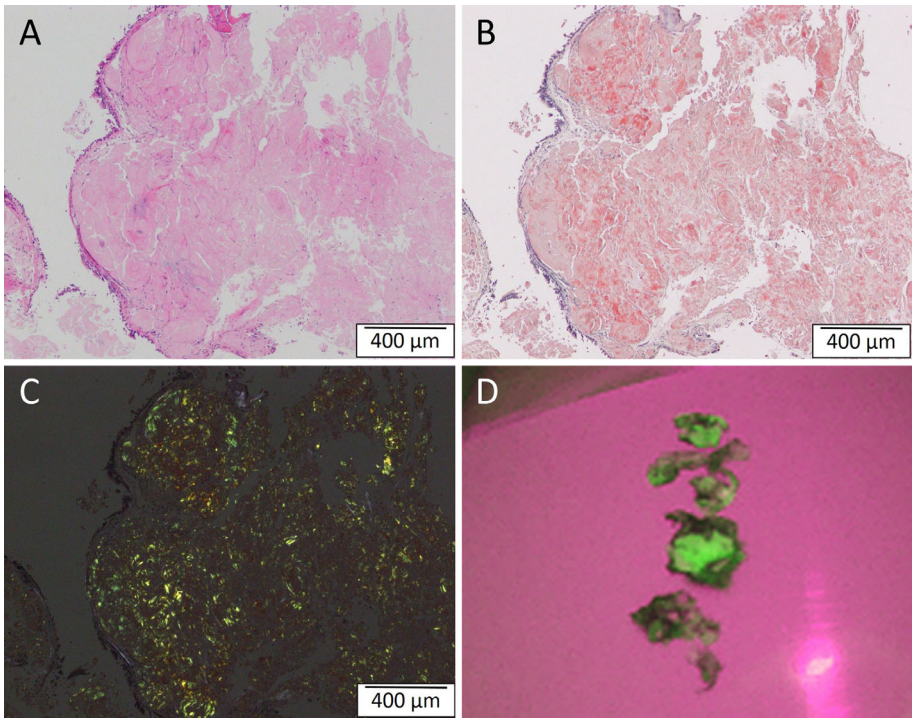


Picture 1.



Picture 2.

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An asymptomatic 69-year-old man visited our hospital for a tracheal tumor examination. Flexible bronchoscopy using white light showed yellowish polypoid lesions in the upper trachea (Picture 1A). Autofluorescence bronchoscopy (AFB) with blue light (420-460 nm) revealed that the lesions emitted an emerald-green color (thus named the emerald sign, Picture 1B). The pathological findings of biopsied specimens were nodular deposits of eosinophilic amorphous material on hematoxylin and eosin staining (Picture 2A) and positively stained by Congo red staining (Picture 2B) with birefringence under polarizing microscopy (Picture 2C). He was diagnosed with localized tracheobronchial amyloidosis (TA), as there were no findings of systemic amyloidosis. An *in vitro* examination via AFB confirmed that the emerald sign corresponded to the amyloid deposition site in the specimens (Picture 2D). TA is a rare disease with varying bronchoscopic findings, including circumscribed, superficial yellowish lesions and cobblestone mucosal infiltrations (1, 2). An emerald sign on AFB may be useful for diagnosing TA.

The authors state that they have no Conflict of Interest (COI).

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