IMAGE OF INTEREST

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Effective control of a severely progressive recurrent respiratory papillomatosis with repetitive cryotherapy

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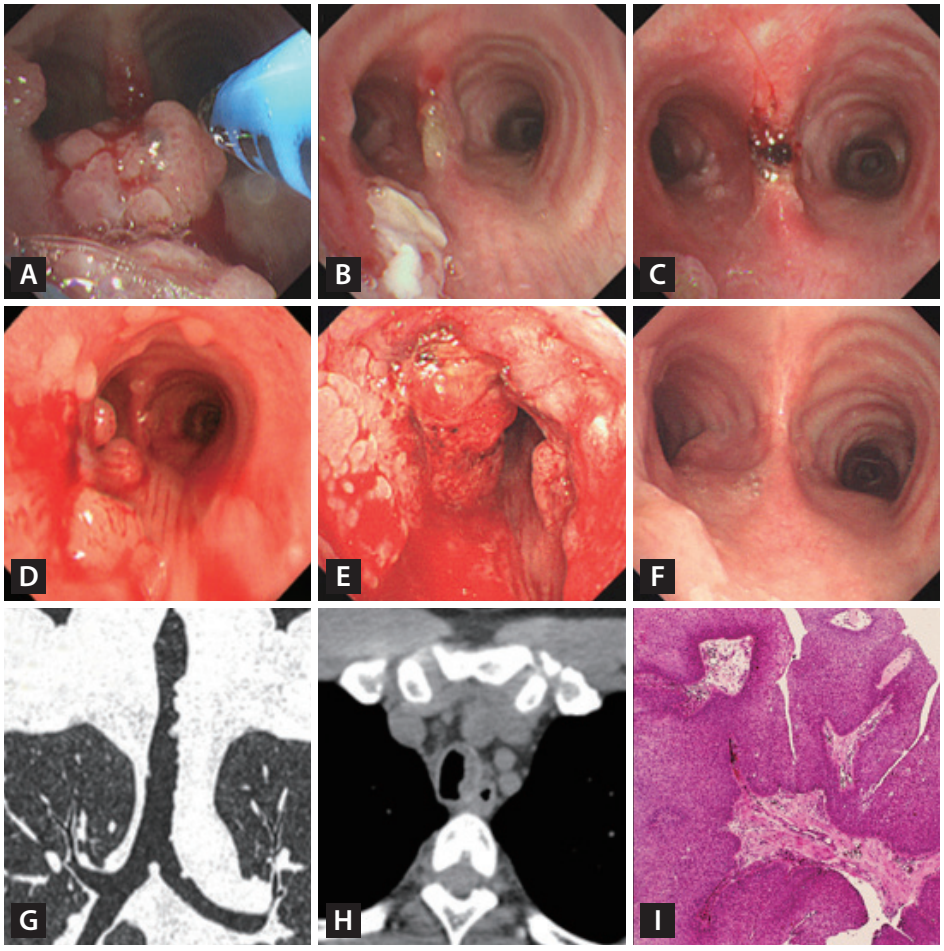

Figure 1. (A) Bronchoscopy at the first cryotherapy session revealed severe airway stenosis caused by multiple papillomata. (B) Bronchoscopic image at the second session one week after the first session. (C) Bronchoscopic image at the third session. Airway stenosis was much alleviated. (D) Papillomata relapsed on multiple sites of the trachea. (E) Bronchoscopic image revealing severely aggravated papillomatosis nearly obstructing the patient's airway. (F) Bronchoscopic image after three months of repetitive cryotherapy. Bulky papillomata were removed again, and the patient's dyspnea was abated. (G) Chest computed tomography (CT) revealed multiple papillomata bulging into the tracheal lumen. (H) Axial chest CT revealed tracheal stenosis. (I) Pathologic examination revealed squamous papilloma with moderate dysplasia (H&E stain, ×50).

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A 36-year-old male was admitted to our hospital with sudden dyspnea. He had a history of laryngeal papillomata and had undergone 20 laryngeal microsurgeries. The patient's medical history was otherwise unremarkable. High-resolution computed tomography showed multiple polypoid lesions bulging into the lumen of the trachea and left main bronchus (Fig. 1G, H). Bronchoscopy revealed severely progressive papillomata throughout the central airway (Fig. 1A). Pathologic examination revealed squamous papilloma with moderate dysplasia (Fig. 1I) and a polymerase chain reaction assay revealed human-papilloma-virus type 11, which triggers recurrent respiratory papillomatosis (RRP) [1]. Consequently, a diagnosis of RRP was confirmed. The bulky papillomata necessitated tracheostomies and a series of cryotherapies under conscious sedation. A 2.4-mm cryoprobe was used (Erbokryo CA; Erbe Elektromedizin GmbH, Tübingen, Germany). After four cryotherapy sessions at one-week intervals, papillomata were removed from the trachea and main carina (Fig. 1B, C). Therefore, the follow-up intervals were lengthened. However, papillomata relapsed at multiple sites in the trachea (Fig. 1D) and four months after the last cryotherapy session, RRP was severely exacerbated (Fig. 1E). The severity of laryngeal stenosis and dyspnea also increased. Thus, additional cryotherapy sessions were performed for three months at three-day to two-week intervals. After treatment, the patient reported substantial abatement of dyspnea (Fig. 1F). To date, the patient has undergone 21 cryotherapy treatments and receives regular follow-up outpatient care. This clinical experience highlights the effectiveness of cryotherapy among several possible treatments for RRP, although no clear treatment guidelines have been established for this disease [2]. Herein, we report a case of successful management of severely progressive RRP with repetitive cryotherapy.

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The authors disclose no conflicts.

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