

A case of granular cell tumor mimicking tracheal invasion of thyroid papillary cancer

전남대학교 의과대학 내과학교실¹

임동훈¹, 신흥준¹, 최유덕¹, *권용수¹

Granular cell tumor is a neoplasm of neural origin. The tumor in trachea is very rare. We report a case of granular cell tumor mimicking tracheal invasion of thyroid cancer. A 46-year-old woman was referred to our clinic with a tracheal mass shown in her chest computed tomography (CT) scan. She underwent left thyroidectomy due to papillary thyroid cancer approximately 10 years ago. She had three weeks history of exertional dyspnea (modified Medical Research Council grade 3), cough and blood tinged sputum. Computed tomography of the chest revealed a 2.5×2 cm sized irregular mass involving trachea, trachea ring and visceral space, with invasion into the tracheal lumen (Figure 1A). Fiberoptic bronchoscopy revealed a protruding mass measuring approximately 2 cm, with a nodular surface and causing a near total obstruction of the upper trachea (Figure 1B). We discussed the treatment plan with otolaryngologist and determined tracheal mass removal using rigid bronchoscopy and complete resection of remained tracheal mass and thyroidectomy with modified radical neck dissection thereafter. Rigid bronchoscopy was performed under general anesthesia for establishing the histologic diagnosis and to relieve the central airway obstruction. Argon plasma coagulation was applied before tumor removal for coagulation and then the tumor was removed by a rigid bronchoscope tip. The microscopic examination of tracheal mass revealed round to oval shaped tumor cells with abundant granular cytoplasm. The nuclei were positive for S-100 protein, whereas results of TTF-1 were negative by immunohistochemical staining (Figure 2). A complete thyroidectomy with modified radical neck dissection was performed by otolaryngologist after rigid bronchoscopy. Histopathology of thyroid mass was corresponded with TPC. Postoperative course was uneventful, there was a no hemoptysis, dyspnea and operative site infection. The patient was discharged on the seventh post-operative day. The patient was monitored in an outpatient clinic and there was no recurrence for the two months follow-up period (Figure 1D).

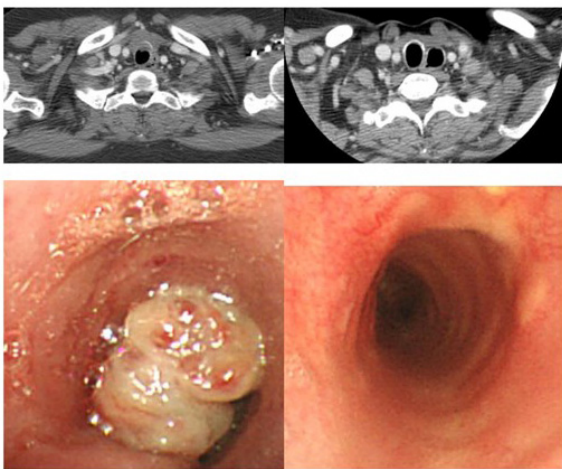


Figure 1.

Chest computed tomography (CT) and bronchoscopy images of a patient with PTC of thyroid and GTC of trachea. (A) Chest CT showed irregular mass involving trachea, trachea ring and visceral space, with invasion into the tracheal lumen (arrow). (B) Bronchoscopic finding showed a protruding tumor with a nodular surface near totally obstructing the lumen of the upper trachea. (C) Chest CT finding of 1 year after bronchoscopic intervention and total thyroidectomy showed a total thyroidectomy state without recurrence. (D) Bronchoscopic finding of two months after bronchoscopic intervention and total thyroidectomy showed a clean tumor base without an evidence of recurrence.

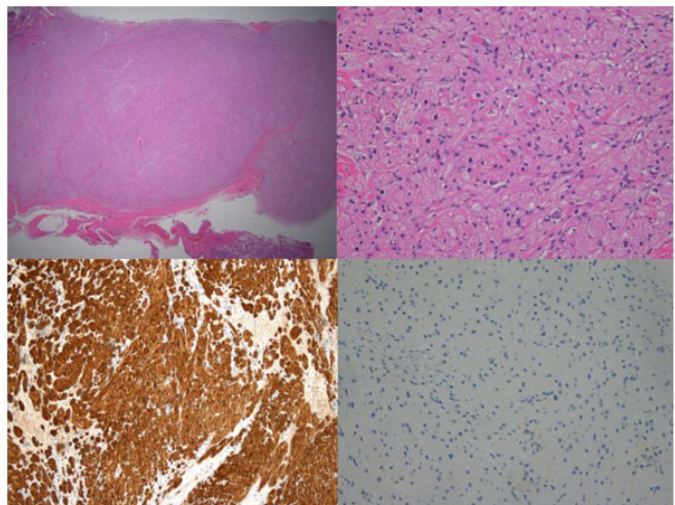


Figure 2.

Histopathologic findings of the tracheal mass. (A) Well demarcated solid mass (H&E, X10). (B) Round to oval shaped tumor cells with abundant granular cytoplasm (H&E, X200). (C) Positive immunoreactivity for S-100 (X200). (D) Negative immunoreactivity for TTF-1 (X200)