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Image in Endocrinology

Anaplastic Thyroid Carcinoma With Air Spaces

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Key Words: anaplastic thyroid carcinoma, thyroidal air space

Abbreviations: ATC, anaplastic thyroid cancer; CT, computed tomography.

Image Legend

A 75-year-old man presented to the orthopedic surgery department with a complaint of neck pain for 1 month and was diagnosed with multiple bone tumors of the cervical spine. Preoperative blood tests showed primary hypothyroidism (thyroid stimulating hormone; 36.8 μIU/mL [36.8 mIU/L] [0.610-4.230 mIU/L], free thyroxine; 0.42 ng/dL [5.40 pmol/L] [11.58-21.87 pmol/L]), and the patient was referred to our department. A hard mass was palpated within the anterior neck region. Cervical contrast-enhanced computed tomography (CT) showed an enlarged thyroid with air spaces (Fig. 1A and 1B). Thyroid ultrasonography revealed an irregular poor-defined hypoechoic lesion with unclear borders and air spaces (Fig. 1C). Fine needle aspiration cytology was performed, and the patient was diagnosed with anaplastic thyroid carcinoma (ATC). Subsequent histopathological examination revealed that the cervical tumors were ATC metastasis. The patient had no respiratory symptoms. He was provided with palliative care because of poor general condition. ATC is an aggressive undifferentiated neoplasm with a mortality approaching 100% [1]. Appropriate examination and diagnosis are urgently required. CT images of ATC masses often show necrosis (82%) and visceral space invasion, involving the trachea (57%) [2]. Thyroidal air spaces are thought to be due to necrosis of the carcinoma and tumor invading the trachea.

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Disclosures

None declared.

Informed Patient Consent for Publication

Signed informed consent obtained directly from the patient.

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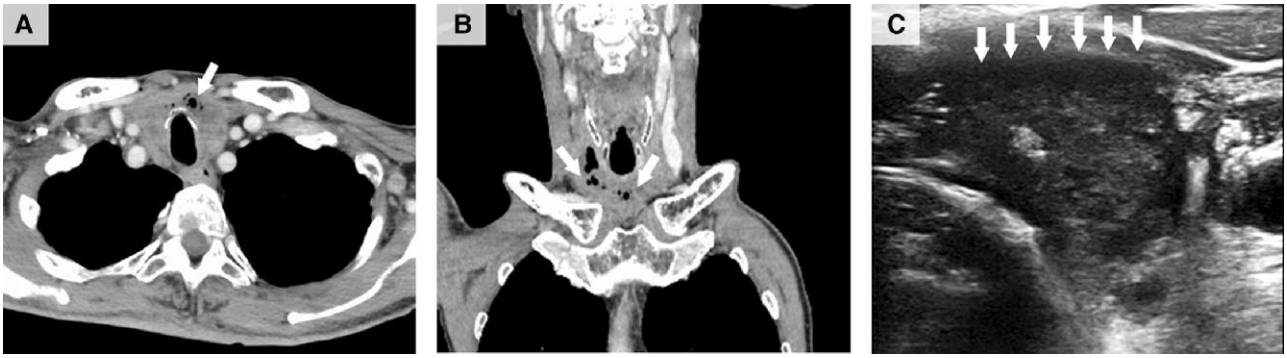

Figure 1. Thyroidal air spaces observed on cervical contrast-enhanced computed tomography and thyroid ultrasonography.

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