A Case of Anaplastic Transformation of Papillary Thyroid Carcinoma in Recurrent Disease after Radioiodine Therapy

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Anaplastic thyroid carcinoma is a rare and lethal human malignancy. In this paper, we report on a case of a 55-year-old man who had undergone radiation therapy on the cervical region for malignant lymphoma at 14 years of age, and had been consulting our hospital for 19 years. He underwent a left hemithyroidectomy for papillary thyroid carcinoma at the age of 35, and 11 years after that a total thyroidectomy was performed for cervical nodal disease. After the operation he underwent radioiodine therapy twice. Five years after radiotherapy, anaplastic carcinomas arose in the left cervix and the cranium. Soon after complete resections of the tumors, systemic metastases were detected with FDG-PET. Finally, 11 months after the operation, he died in our palliative care unit at the age of 55 due to frequent bleeding from a palatal carcinoma.

A review of the literature showed that the age at which the tumor arose, namely the peak of the patient’s life, was earlier than was usually reported. The survival time of 11 months observed in our patient was more than that generally observed in patients with anaplastic carcinoma.

Keywords: anaplastic transformation, papillary thyroid carcinoma, radioiodine therapy, radiation therapy, anaplastic carcinoma

References


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Histopathological findings of the tumor in the left lobe of the thyroid performed at the first operation show papillary structures with irregular and pale nuclei (HE staining, ×100).

Histopathological findings of the left recurrent cervical tumor show solid proliferations of atypical cells with severe polymorphism, increasing amounts of chromatin, a lot of bizarre cells (arrows), and nuclear fissions (HE staining, ×200).

Computed tomography findings reveal metastases from the anaplastic carcinoma [a: the skull (arrow), b: the cervical region (arrow)].