# THE COEXISTENCE OF ANAPLASTIC THYROID CARCINOMA AND PAPILLARY THYROID CARCINOMA: TWO CASE REPORT



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#### INTRODUCTION

Anaplastic thyroid carcinomas (ATCs) are sometimes accompanied by well-differentiated carcinomas (WDCs), and have been speculated to be dedifferentiated from the preexisting or coexisting WDCs. We will present two cases determined with both ATC and papillary thyroid carcinoma (PTC).

### CASE-1

A 82-year-old woman was investigated due to a painful neck mass. The case reported no complaints of dysphagia or dysphonia. Thyroid function tests were within normal ranges. Thyroid ultrasonography revealed isohypoechoic nodules in sizes of 19x21.2x45 mm and 6.2x11.4x13.5 mm in right lobe and a isoechoic nodule in size of 7.8x8x11.3 mm in left lobe. Fine needle aspiration biopsy was performed, and PTC was detected in both nodules on the right. Bilateral total thyroidectomy was performed, and during the operation it was observed that a tumor was invaded trachea and eusophagus. In pathological investigation, the nodule of 45 mm in the right lobe was seen to be an ATC including regions of classical variant PTC (Figure 1). Anaplastic carcinoma regions were largely with epithelioid appearance and also included squamous differentiation regions. Marked pleomorphism and frequent mitosis were determined in the tumor including widespread necrotic regions. Immunohistochemical examination revealed that pancytokeratin was positive, HBME 1 was focal positive, but TTF-1 was negative. Proliferation index of Ki-67 was 70%. Additionally, the pathology of the nodule of 13.5 mm in the right lobe was consistent with classical variant PTC (Figure 2). ATC and PTC were present in the case in the form of two different foci. PET/CT revealed the involvements of increased 18 FDG consistent with metastasis, and due to the metastatic condition in the case, radiotherapy was performed.

### CASE-2

A 62-year-old male presented to our clinic complaining of a neck lump, hoarseness, and dysphagia. Physical examination revealed a 4-cm mass and cervical lymph nodes on the left side of the neck. Thyroid function tests were within normal ranges. Thyroid ultrasonography revealed hypoechoic nodules in sizes of 41 mm nodule in the left lobe. Two preoperative fine-needle aspiration biopsies were reported as non-diagnostic. He underwent a bilateral total thyroidectomy and left extended lymph node dissection. The final postoperative pathology report was a 3-cm ATC in the left lobe and a 5-mm PTC in the right lobe (Figure 3). He was given external beam radiation therapy postoperatively.

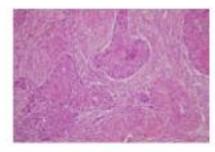


Figure 1: Microscopic photograph of anaplastic thyroid carcinoma, HE x200(Case 1)

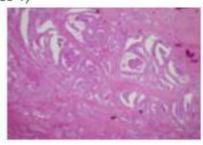


Figure 2:Microscopic photograph of papillary thyroid carcinoma, HE x200 (Case 1)

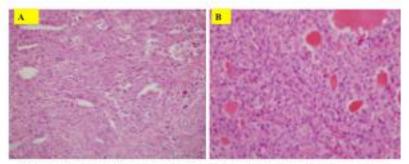


Figure 3: A: Anaplastic thyroid carcinoma, B: Papillary thyroid carcinoma, HE x200 (Case 2)

## CONCLUSION

PTC followed by poorly differentiated and follicular carcinoma are most frequently cited to coexist or as precursors of ATC. The early diagnosis of thyroid carcinoma results in decrease of the incidence of ATC.