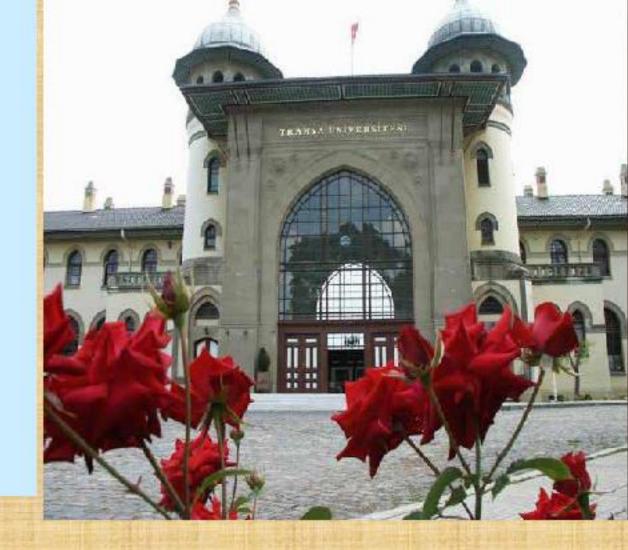


Coexisting Papillary Thyroid Carcinoma and Renal Cell Carcinoma: 4 Cases



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Papillary thyroid cancer (PTC) constitutes 85% of all differentiated thyroid cancers. PTC is usually sporadic, but may occur in a familial form. Familial cancer syndromes such as Cowden's syndrome and familial adenomatous polyposis are associated with PTC. Lal et al. recently published a study in which subsequent thyroid cancer was most common among the patients with renal cell cancer (RCC). RCC is a common malignancy of uroepithelial region, which constitutes about 3% of all adult malignancies. We presented 4 cases consecutively diagnosed with PTC and RCC within 12 months (Table). 3 cases with BRAF positivity had lymph node metastasis. The BRAF gene is located on chromosome 7. BRAF is a signaling protein downstream of Ras that activates the MAP-kinase pathway and implicated in cell differentiation and proliferation. Mutations of this gene have been found in cancers, including non-Hodgkin lymphoma, colorectal cancer, malignant melanoma, PTC and lung carcinoma, while few studies reported RCC cases with BRAF mutation. In 2016, Natasha Banerjee et al. reported a case with metastatic RCC and BRAF mutation, in whom a good clinical outcome was achieved following BRAF inhibition. BRAF positivity observed in 3 of our cases suggests that further studies are required on a common mutation that exists in RCC and PTC.

Table:

	CASE 1	CASE 2	CASE 3	CASE 4
Age	64	48	56	67
Gender	Male	Male	Male	Male
Clinic	Euthyroid	Euthyroid	Hyperthyroid	Hyperthyroid
PTC-variant	Classic and follicular	Classic and follicular	Classic and oncocytic	Classic, follicular and oncocytic
PTC-grade	pT1a -pN1	pT1a -pNx	pT3a -pN1	pT4a –pN1
Focality	Multifocal	Multifocal	Multifocal	Multifocal
Metastasis	+		+	+
BRAF mutation	V600E (+)	Not analyzed	V600E (+)	V600E (+)
RAI (I-131)	-	na ar	+	+



