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## BACKGROUND

➤ Differentiated thyroid cancer is the most frequent thyroid tumor. Combinations of follicular and papillary carcinoma can be seen. Functional pituitary adenoma coexisting with differentiated thyroid carcinoma was reported previously in literature. We report a 47-year-old women with three different synchronous endocrine tumors; papillary thyroid cancer, follicular thyroid cancer and prolactinoma.

## CASE

➤ 47-years-old female patient was admitted to out-patient clinic with oligomenorrhea and galactorrhea. Except patient's prolactin (PRL) rise, hormonal levels were in normal ranges (PRL: 186 ng/ml). Macroprolactin was negative.

➤ Pituitary magnetic resonance imaging (MRI) demonstrated a mass with 9x11 mm size (Image). Cabergolin 0.5 mg/ twice a week was started.

➤ She was euthyroid and thyroid autoantibodies were in normal ranges. In thyroid ultrasonography (US), 17x10 mm nodule in left lobule, 21x19 mm nodule in right lobule and 8x7mm nodule in isthmus were detected. Fine needle aspiration biopsy suggested suspicious for follicular neoplasm for nodule in right lobule, benign for the left one.

➤ She underwent total thyroidectomy. The histopathological examination revealed presence of a follicular cancer within right lobule (2 cm) and multifocal papillary cancer (0.5 cm, 0.8 cm, 1.2 cm) within left lobule. Radioactive iodine was given to patient after surgery.

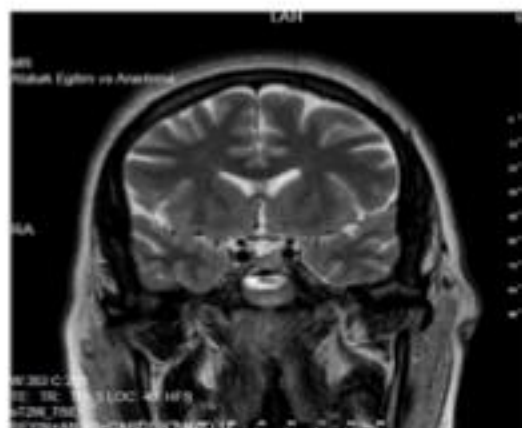
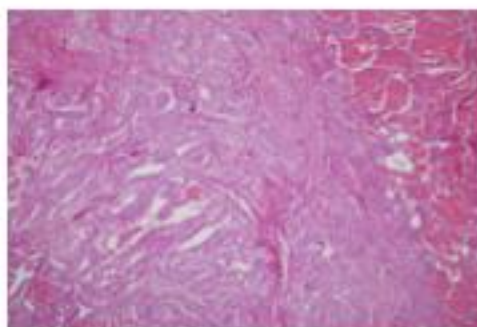
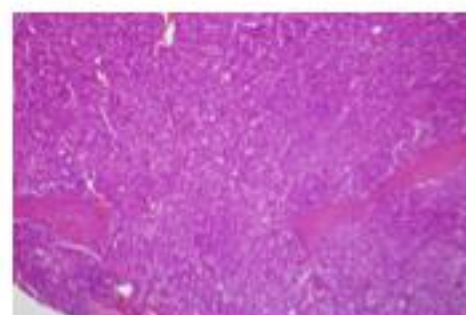


Image: Pituitary MRI of patient

Picture 1. Papillary thyroid carcinoma



Picture 2. Follicular thyroid carcinoma



## CONCLUSION

➤ Underlying pathological cause of most pituitary adenomas remains unclear despite the recent identification of a number of potential molecular genetic abnormalities. Pituitary tumor transforming gene (PTTG) initially isolated from pituitary tumor cells. PTTG protein is expressed at higher than normal levels in several tumors, including those of the pituitary, thyroid, colon, ovary, testis, breast and hematopoietic neoplasms.

➤ Co-existence of three endocrine tumors in our case may be caused from different causes. It may be related with the potential molecular genetic abnormalities like PTTG. Or, incidental occurrence of them may be a reason, because each tumor occurs with a high prevalence in general population.