

## **MARINE-LENHART HARBORING PAPILLARY THYROID CANCER**

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**Background/Purpose:** This case report presents a patient with Marine-Lenhart syndrome with the dilemma of a hot nodule found on thyroid scintigraphy which had “suspicious” ultrasonographic features prompting thyroidectomy after a cytological diagnosis of papillary thyroid cancer.

### **Methods:**

**Results:** A 60-year-old female presented for evaluation of asymptomatic hyperthyroidism discovered by routine blood work. Radionuclide I-123 labeled scan demonstrated a 24-hour thyroid uptake value of 35.8%. Scintigraphic images revealed a mildly enlarged heterogenous thyroid with a cold nodule in the right lower pole and a hot nodule in the left upper pole. Ultrasonography revealed left 1.3 cm upper pole nodule demonstrating a highly suspicious described as solid, irregular in contour with coarse calcifications correlating with the hot nodule. Cytologic features of the left upper pole “hot” nodule was consistent with papillary thyroid carcinoma and she underwent a total thyroidectomy. The pathology report revealed multifocal micro-PTC. The left thyroid lobe demonstrated a 0.9 cm papillary thyroid carcinoma corresponding to the “hot” nodule on scan.

**Discussion & Conclusion:** Graves' disease may harbor an increased incidence of thyroid carcinomas. Current literature suggests that hyperfunctioning nodules rarely harbor malignancy and therefore no cytologic evaluation is necessary. However, in patients with coexistent hyperfunctioning thyroid nodules and Graves' disease, thyroid ultrasonography may shed light on characteristics suggestive of thyroid malignancy, thus allowing for proper therapeutic intervention as in our case where thyroid ultrasonography pinpointed the final pathology of papillary thyroid cancer.