



University of Nebraska  
Medical Center  
Nebraska Medicine

Graduate Medical Education  
Research Journal

---

Volume 1 | Issue 1

Article 32

---

December 2019

## Papillary Thyroid Cancer in the Ovaries? A Case of Struma Ovarii

Sapna Raghunathan et al

Follow this and additional works at: <https://digitalcommons.unmc.edu/gmerj>



Part of the [Higher Education Commons](#), and the [Medicine and Health Sciences Commons](#)

---

### Recommended Citation

Raghunathan et al, S. Papillary Thyroid Cancer in the Ovaries? A Case of Struma Ovarii. Graduate Medical Education Research Journal. 2019 Dec 13; 1(1).  
<https://digitalcommons.unmc.edu/gmerj/vol1/iss1/32>

This Conference Proceeding is brought to you for free and open access by DigitalCommons@UNMC. It has been accepted for inclusion in Graduate Medical Education Research Journal by an authorized editor of DigitalCommons@UNMC. For more information, please contact [digitalcommons@unmc.edu](mailto:digitalcommons@unmc.edu).

---

## Papillary Thyroid Cancer in the Ovaries? A Case of Struma Ovarii

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

correctly identified relative afferent pupillary defect (RAPD) while 88% (111) students and 95% (18) residents correctly identified Horner's syndrome. 97% (123) students and 95% (18) residents correctly used appropriate pharmacological drops to confirm Horner's pupil. Post training, students reported improved confidence in identification of all 5 pupillary abnormalities (p=0.00), while residents reported most improvement in the confidence in diagnosing Adie pupil (p=0.00)

## When It's Not Just Hypothyroidism

**Preethi Polavarapu**, Whitney S Goldner

**Mentor:** Whitney S Goldner

**Program:** Diabetes, Endocrinology, and Metabolism

**Background:** Autoimmune Polyglandular Type II Syndrome is characterized by Autoimmune Thyroid disease, Type I Diabetes, and Primary Adrenal Insufficiency. Twenty percent of the persons with APS II can simultaneously present with symptoms of adrenal insufficiency and thyroid disease. In these patients, replacement of thyroid hormone before cortisol can precipitate adrenal crisis.

**Methods:** A middle-aged patient presented to the endocrine clinic with fatigue, unintentional weight loss, nausea, abdominal pain and syncope. Initial labs with the PCP showed elevated TSH at 6.6 mIU/ml, normal T4 0.8 ng/dl consistent with subclinical hypothyroidism. The patient was started on levothyroxine but symptoms worsened despite

and using pharmacologic agent to confirm anisocoria (p=0.00).

**Conclusion:** All trainees showed significant improvement in confidence and competence in pupillary examination after using the APS. Virtual-reality based practical training can shorten time to competency for critical medical examination techniques. ■

<https://doi.org/10.32873/unmc.dc.gmerj.1.1.030>

normalization of thyroid function tests. The patient presented to us for further evaluation. On examination the patient was tan, blood pressure was 100/56mmHg. Labs showed Sodium 133 mmol/l, Potassium 4.5 mmol/l, TSH 2.5 mIU/ml, T4 1 ng/dl, Bicarbonate 24mmol/l. Given the patient's worsening symptoms despite normalization of thyroid function tests and electrolyte abnormalities she was evaluated for adrenal insufficiency.

**Results:** Labs showed random cortisol level 0.4 mcg/dl, ACTH stimulation showed cortisol level at 0.30, 60 minutes was <0.4 mcg/dl, ACTH level 951 pg/ml, aldosterone <3ng/dl, renin 0.5 ng/ml/hr consistent with adrenal insufficiency. Levothyroxine was held for 1 week, hydrocortisone and fludrocortisone was initiated and symptoms improved dramatically.

**Conclusion:** Multiple endocrinopathies can present in persons with APS II. This

patient presented with both Primary Adrenal Insufficiency and Primary Hypothyroidism. Symptoms of hypothyroidism and adrenal insufficiency can be nonspecific, so a high index of suspicion is needed to evaluate for other causes if symptoms worsen after initiating levothyroxine. ■

<https://doi.org/10.32873/unmc.dc.gmerj.1.1.031>

## Papillary Thyroid Cancer in the Ovaries? A Case of Struma Ovarii

**Sapna Raghunathan**, Anery Patel

**Mentor:** Anery Patel

**Program:** Diabetes, Endocrinology, and Metabolism

**Background:** Struma ovarii is a specialized teratoma predominantly composed of mature thyroid tissue. Accounts for 5% of all teratomas. They could be benign or malignant, compose >50% of overall tissue, to be categorized as struma ovarii. Clinical and biochemical findings of hyperthyroidism are uncommon. Here, we present a case of struma ovarii with co-existing thyroid nodules.

**Methods:** This is a middle-aged patient with no past medical history, who presented to the PCP with dysmenorrhea and menorrhagia. The patient was found to have a complex 8 cm ovarian cyst with normal CA-125. The patient underwent a right oophorectomy and bilateral salpingectomy for removal of the mass. Pathology showed the ovarian cyst

wall containing thyroid tissue, mostly benign, but with two small foci of follicular variant of papillary carcinoma in the background of struma ovarii.

Initial thyroid function tests showed a TSH of 4.44 and thyroglobulin levels within normal range. Ultrasound of the thyroid gland, showed a 1 cm nodule with a 5-20% risk of malignancy, but too small to biopsy. Considering the need to monitor disease recurrence with tumor markers, the patient underwent a total thyroidectomy.

**Results:** Pathology of the thyroid gland showed lymphocytic thyroiditis with no evidence of malignancy.

**Conclusions:** Thyroid cancer metastatic to the ovary can be confused with true struma ovarii. Primary thyroid cancer rarely metastasizes to the ovary, and in these cases, the ovary does not have teratomatous features.

Thyroidectomy helps to monitor recurrence, as thyroglobulin can then be produced only by the tumor. ■

<https://doi.org/10.32873/unmc.dc.gmerj.1.1.032>