

RESULTS

The overall agreement between thyroid palpation and POCUS was moderate, with a Kappa value of 0.516 ($p < 0.001$). The prevalence of clinically relevant thyroid nodules among adult Filipinos with no known thyroid disease as determined by POCUS was 48.77% (95% CI: 42.34 - 55.23). Regarding nodule size, there was a non-significant increase in the odds of being palpated for nodules between 1.0-1.5 cm as compared to those less than 1.0 cm (OR=1.46, 95% CI: 0.68-3.09, $p = 0.323$). However, nodules greater than 1.5 cm exhibited a substantially higher likelihood of being palpated (OR=6.42, 95% CI: 3.31-12.79, $p < 0.001$). The agreement for thyroid palpation performed by both endocrinologists was found to be moderate, with a Kappa value of 0.552 ($p < 0.001$).

When compared to POCUS, thyroid palpation had a sensitivity of 89.19% (95% CI: 81.68-93.85) and a specificity of 60.71% (95% CI: 51.01-69.64) across all locations. In addition, thyroid palpation had a positive predictive value of 85.71% (95% CI: 77.63-91.21) with a 68% negative predictive value (95% CI: 58.44-76.26). The positive likelihood ratio was 2.27 (95% CI: 1.42-3.62) while the negative likelihood ratio was 0.18 (95% CI: 0.09-0.37). Lastly, the proportion of accurate diagnosis—true positives and negatives—out of all cases was 81.37% (95% CI: 72.73-87.74) when thyroid palpation was compared to POCUS.

CONCLUSION

Thyroid palpation, when performed by experienced endocrinologists, yields a high sensitivity of detecting clinically relevant nodules. However, thyroid palpation also missed 10.8 % and incorrectly identified 39.3% of clinically relevant nodules. This study provides evidence to support the use of POCUS as part of routine outpatient evaluation of the thyroid to improve the accuracy of detecting clinically relevant thyroid nodules.

KEYWORDS

thyroid palpation, POCUS, clinically relevant thyroid nodules

PP-T-26

NORMOKALEMIC PERIODIC PARALYSIS IN A 24-YEAR-OLD-FILIPINO MALE WITH GRAVES' DISEASE

<https://doi.org/10.15605/jafes.038.AFES.179>

Samantha Bernardine Reburiano and Lizette Kristine Lopez

University of Santo Tomas Hospital, Manila, Philippines

CASE

Thyrotoxic periodic paralysis is a rare event typically presenting with hypokalemia and weakness that occurs primarily among Asians. Rarer still is thyrotoxic periodic

paralysis with normokalemia, of which only 6 cases have been reported in the Asian population. There have been no reports of this phenomenon among Filipinos.

This is a case of a 24-year-old Filipino male with Graves' disease on treatment presenting with sudden onset bilateral lower extremity weakness. The patient was treated a week prior with prednisone since he initially exhibited hypersensitivity reactions to methimazole. On the day of the consult, the work-up showed normokalemia, with normal sodium and calcium levels and a suppressed TSH. He was given propranolol and propylthiouracil. Serum potassium monitoring was done. There was no decreased serum potassium levels, hence, the patient was discharged and continued outpatient treatment for hyperthyroidism.

This is the first case report of normokalemic thyrotoxic periodic paralysis in the Filipino population.

KEYWORDS

Graves' disease, normokalemic periodic paralysis, thyrotoxic periodic paralysis, Filipino

PP-T-27

POST I-131 THERAPY HYPERTHYROIDISM AND THYROID SWELLING RESULTING IN UPPER AIRWAY OBSTRUCTION IN A PATIENT TREATED FOR TOXIC MULTINODULAR GOITER: A CASE REPORT

<https://doi.org/10.15605/jafes.038.AFES.180>

Pittawat Owarakorn, Wannida Pisutsawat, Kanaungnit Kingpetch, Panudda Srichomkwun,
Chulalongkorn University, Bangkok, Thailand

CASE

I-131 therapy is well-established as an efficient and safe treatment for hyperthyroidism. Complications such as post-therapy hyperthyroidism and thyroid swelling rarely occurred. We present a case of I-131 therapy-induced hyperthyroidism and thyroid swelling that resulted in upper airway obstruction in a patient treated for toxic multinodular goiter. (TNMG)

A 63-year-old Thai female presented with a palpable thyroid mass. She had palpitations and mild dyspnea on exertion. Physical examination showed thyroid enlargement of approximately 60 grams with palpable multiple nodules of the right thyroid lobe and a single palpable nodule measuring 3-4 cm in the left thyroid lobe. Laboratory investigation showed FT4: 2.07 ng/dL (0.93-1.7) and TSH < 0.01 uIU/mL (0.27-4.2). Thyroid ultrasound revealed multiple thyroid nodules with a maximum size of 4x3x6.3 cm (the right and left thyroid volume was 57 mL and 51 mL, respectively). A thyroid scan revealed heterogeneously increased radiotracer uptake in the enlarged lobulated

thyroid gland with multiple foci of relatively decreased and increased radiotracer uptake which were compatible with toxic multinodular goiter. She was diagnosed with TMNG and underwent 25 mCi of I-131. After 2 months of I-131 therapy, she came to the emergency department with dyspnea, palpitation, dysphagia, and thyroid enlargement. Physical examination revealed an increased size of the thyroid gland, approximately 80 grams, with an inspiratory stridor. Laboratory investigation showed FT3: 13.41 pg/ml (1.6-4), FT4: 2.35 ng / dL (0.7-1.48) and anti-TSH-R: 33.42 IU/L (0-1.75). The chest film and computed tomography showed a narrowing of the tracheal lumen (4 mm in diameter). Furthermore, her serum calcium was 11.6 mg/dL (8.5-10.5), phosphate was 3 mg/dL (2.3-4.7), and iPTH was 130 pg/mL (15-65). A parathyroid MIBI scan was done which revealed a 0.9 x 1.1 cm non-MIBI avid nodule located at the upper pole of the left thyroid lobe, suspected for a parathyroid adenoma. She was diagnosed with post-I-131 therapy hyperthyroidism that caused upper airway obstruction concomitant with primary hyperparathyroidism. She was admitted to the intensive care unit and treated with propylthiouracil, dexamethasone, and propranolol. Subsequently, she underwent total thyroidectomy with left upper and lower parathyroidectomy, resulting in an improvement in her symptoms.

Our patient developed rebound hyperthyroidism with swelling of the thyroid after the I-131 treatment for 2 months, which resulted in impending upper airways. The present case highlights the need for physicians to be aware that rebound hyperthyroidism may present later than usual and may also cause thyroid swelling in some cases.

KEYWORDS

post-I-131 hyperthyroidism, thyroid swelling, rebound hyperthyroidism, upper airway obstruction, toxic multinodular goiter.

PP-T-28

THYROID ASSOCIATED OPHTHALMOPATHY IN A 63-YEAR-OLD FEMALE WITH HASHIMOTO'S THYROIDITIS

<https://doi.org/10.15605/jafes.038.AFES.181>

Nur Rusyda Kuddah

RS Cipto Mangunkusumo, Jakarta, Indonesia

CASE

Thyroid-associated ophthalmopathy (TAO) affects extraocular muscles and orbital connective tissue. Generally associated with Graves' disease with positive TRAb, and Hashimoto's disease as well. Although usually mild, severe forms of Hashimoto TAO may need serious treatment.

A 63-year-old Indonesian female came with a blurred, bulging, and double vision of the right eye 7 months prior accompanied by a prominent sign of hypothyroidism. Physical examination showed proptosis, swollen eyelid, and conjunctival injection of the right eye. The point Clinical Activity Score (CAS) was 5. Laboratory results showed high TSH, low FT4, TRAb of 9.74 IU/L, and anti-TPO of 62.47 IU/mL. Thyroid sonography revealed a right lobe hypoechoic nodule. Thyroid scan revealed cold nodule and FNAB showed benign struma adenomatosa. CT scan of the orbits showed bilateral proptosis with general muscle thickening. Hashimoto's thyroiditis and moderate-severe active TAO were established and treated with levothyroxine replacement, 4 cycles of high-dose steroid injection, and artificial tear drops.

We reported a rare case of severe TAO with Hashimoto's thyroiditis who needed steroid pulse therapy.

KEYWORDS

anti-TPO, Hashimoto's thyroiditis, hypothyroidism, ophthalmopathy, TRAb

PP-T-29

THYROTOXICOSIS WITH HIGH TRIIODOTHYRONINE (T3) AND LOW THYROXINE (T4): A CASE SERIES AND REVIEW OF CLINICAL AND MANAGEMENT

<https://doi.org/10.15605/jafes.038.AFES.182>

Sajja Jangjit and Veerasak Sarinnapakorn

Rajavithi hospital, Bangkok, Thailand

INTRODUCTION

The thyroid function test with high FT3 and low FT4 is uncommon in hyperthyroidism patients. There is no clear treatment guideline, causing difficulty in adjusting the medication. The mechanism of this group of thyrotoxicosis is the increased conversion of T4 to T3 in the peripheral tissue. There has been an increase in dehydrogenase types 1 and 2 in a few reports. Furthermore, no relationship with thyroid cancer has been studied. This study aims to review clinical management and outcomes in thyrotoxicosis patients with high FT3, low FT4, and TSH.

METHODOLOGY

The data, including gender, age, TSH, FT3, FT4, medication, surgery, and tumor pathology, were collected retrospectively between 2015-2022 from Rajavithi Hospital's database. The inclusion criteria for selecting patients were: (1) 18 years old or over; and (2) at least one laboratory result shows low TSH with high FT3 and low FT4 levels.