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THE PREVALENCE AND ASSOCIATED RISK FACTORS OF REBOUND HYPERTHYROIDISM IN GRAVES' DISEASE AFTER ANTI-THYROID DRUG DOSE REDUCTION (PARAGON STUDY)

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INTRODUCTION

Graves' disease (GD) is a disorder of thyroid hormone overproduction caused by TSH receptor antibody (TRAb). Antithyroid drug (ATD) with a titration regimen is a treatment option for GD. Once euthyroidism is achieved, the ATD dose should be reduced and continued to the lowest maintenance dose to keep thyroid hormone level within normal range. The prevalence of rebound hyperthyroidism after ATD dose reduction has been undetermined to date. Furthermore, its associated risk factors are not well described.

METHODOLOGY

This retrospective study focused on GD patients receiving ATD treatment with a titration regimen in Rajavithi Hospital from July 1, 2012 to July 31, 2022. Inclusion criteria were: patients aged over 18 years old, diagnosed with GD, treated with ATD, and subsequent ATD reduction at the discretion of treating physicians after the initial phase of treatment. Exclusion criteria were prior diagnosis of thyroid storm, prior RAI thyroid surgery, pregnancy, history of drug allergy to ATD, a block and replace regimen, and other medications known to interfere with thyroid function test.

RESULTS

A total of 550 patients who were diagnosed with GD and treated with ATD were included in this study. After ATD reduction, there were 66 patients (12%) in the rebound hyperthyroidism group (RH group) and 484 patients (88%) in the non-rebound hyperthyroidism group (NRH group). The risk factors independently associated with rebound hyperthyroidism after ATD reduction were use of beta-blocker (adjusted OR = 4.947; 95% CI: 1.050-23.309, $p = 0.043$), FT4 at diagnosis ≥ 3.4 (adjusted OR= 3.325; 95% CI: 1.244-8.887, $p = 0.017$) and low TSH at ATD reduction (adjusted OR = 4.864; 95% CI: 1.477-16.022, $p = 0.009$).

CONCLUSION

This study was the first to provide the prevalence of rebound hyperthyroidism after ATD reduction, which was 12% among GD patients. The use of beta-blocker, FT4 at diagnosis ≥ 3.4 ng/d, and low TSH at ATD reduction were the risk factors associated with rebound hyperthyroidism after ATD reduction.

KEYWORDS

rebound hyperthyroidism, Graves' disease, antithyroid drug, titration regimen, dose reduction

PP-T-25

THE ACCURACY OF THYROID PALPATION COMPARED TO POINT-OF-CARE ULTRASOUND (POCUS) OF THE THYROID IN THE DETECTION OF CLINICALLY RELEVANT NODULES AMONG ADULT FILIPINOS LIVING IN A COMMUNITY SETTING

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INTRODUCTION

Thyroid palpation is one of the initial steps in accessing any suspicious nodule of the thyroid and is part of the general physical examination of the neck. It's accuracy is affected by patient factors such as weight and neck circumference, in addition to the clinicians' experience. This study will determine the accuracy of thyroid palpation compared to point-of-care ultrasound (POCUS) in detecting clinically relevant nodules, defined as more than 1.0 cm based on the American Thyroid Association 2015 recommendation.

METHODOLOGY

The study method was cross-sectional, enrolling 290 Filipino adults, yielding a 99% statistical power with a 0.4 kappa agreement. Inclusion criteria are as follows: >18 years old, no previously known thyroid disease, residing in a 1st class municipality in Batangas City, Philippines. Pregnant and lactating women, those taking thionamides or levothyroxine, with previous thyroid surgery or neck radiation were excluded from the study. Included participants were subjected to the modified rose method of thyroid palpation by two board-certified endocrinologists with at least 10 years of experience followed by POCUS of the thyroid conducted by another endocrinologist with specialized training in thyroid ultrasonography. All examiners were blinded from each other's results.