

suppressive thyroxine therapy. Diagnosis of FV-PTC may be a greater challenge than conventional forms because of possible false-negative results on cytology. The infiltrative subtype has greater metastatic potential and higher recurrence rates. Multidisciplinary team management and careful preparation prior to treatment with RAI are indicated in these cases.

KEYWORDS

thyroid, follicular variant, papillary thyroid cancer, PTCA, thyroid cancer

PP-T-05

MANAGEMENT OF HYPOTHYROIDISM IN GASTRIC OUTLET OBSTRUCTION USING LEVOTHYROXINE SOLUTION VIA ILEOSTOMY ROUTE

<https://doi.org/10.15605/jafes.038.AFES.158>

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CASE

A 64-year-old Filipino female with colon adenocarcinoma previously underwent hemicolectomy and ileostomy creation. She was maintained on oral levothyroxine 75µg tablet once daily for post-surgical hypothyroidism. She was placed on prolonged nothing per orem due to gastric outlet obstruction which hindered the delivery of oral levothyroxine resulting in hypothyroidism. Her thyroid function test showed elevated TSH at 23.2 uIU/ml and low normal free T4 at 0.7 ng/dl. Levothyroxine solution was prepared by dissolving 2 tablets of 150 µg levothyroxine in 50ml of plain saline solution administered via ileostomy route using a French 24 foley catheter and dwelling for 2 hours before removal. We delivered levothyroxine solution via the ileostomy route at a dose range of 6.3 to 15 µg per kilogram per day to achieve euthyroid state with a normal free T4 level. A cost-effective and safe alternative route of levothyroxine administration for conditions prohibiting the enteral route of administration can be used.

KEYWORDS

levothyroxine, hypothyroidism, ileostomy, malignant obstruction

PP-T-06

ASSOCIATION BETWEEN THYROID HORMONES WITHIN NORMAL TO SUBCLINICAL DYSFUNCTION AND LEFT VENTRICULAR DIASTOLIC DYSFUNCTION

<https://doi.org/10.15605/jafes.038.AFES.159>

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INTRODUCTION

Thyroid hormones play critical roles in modulating the cardiovascular system. However, the effects of subclinical thyroid dysfunction and euthyroidism on cardiac function remain unclear. We investigated the association between left ventricular (LV) diastolic dysfunction and subclinical thyroid dysfunction or thyroid hormone levels within the reference range and LV diastolic dysfunction in a large cohort.

METHODOLOGY

This cross-sectional study included 26,289 participants (22,197 euthyroid, 3,671 with subclinical hypothyroidism, and 421 with subclinical thyrotoxicosis) who underwent regular health checkups. The cardiac structure and function were evaluated using echocardiography. LV diastolic dysfunction with normal ejection fraction (EF) was defined as follows: EF of >50% and (a) E/e' ratio >15, or (b) E/e' ratio of 8–15 and left atrial volume index ≥34 mL/m².

RESULTS

Subclinical hypothyroidism was significantly associated with cardiac indices regarding LV diastolic dysfunction, and the risk of having LV diastolic dysfunction was also increased in participants with subclinical hypothyroidism (adjusted odds ratio [AOR] 1.36, 95% confidence interval [CI], 1.01–1.89) compared to euthyroid participants. The risk of having diastolic dysfunction was even greater in participants who had relatively severe hypothyroidism (thyroid stimulating hormone [TSH] ≥10.0 uIU/mL (AOR, 1.99; 95% CI: 1.07–5.00). Subclinical thyrotoxicosis was not associated with diastolic dysfunction. Among the thyroid hormones, only serum triiodothyronine (T3) was significantly and inversely associated with LV diastolic dysfunction even within the normal range.

CONCLUSION

Subclinical hypothyroidism is significantly associated with LV diastolic dysfunction. Subclinical thyrotoxicosis is, in part, associated with changes in the indices of LV structure or function, but its association with the presence of diastolic dysfunction was not significant. Serum T3 is a relatively important contributor to LV diastolic dysfunction compared to TSH or free thyroxine.

KEYWORDS

thyroid hormone, subclinical hypothyroidism, subclinical thyrotoxicosis, diastolic dysfunction

PP-T-07

MATURE CYSTIC TERATOMA WITH PAPILLARY THYROID CARCINOMA IN A PATIENT WITH THYROID NODULES

<https://doi.org/10.15605/jafes.038.AFES.160>

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CASE

We present a 37-year-old Filipino female who was apparently well and has never been hospitalized. She underwent an annual wellness medical exam where an incidental finding of an ovarian new growth on the left was found.

Laparoscopic surgery was done and histopathology revealed mature cystic teratoma with papillary thyroid carcinoma, composed of thyroid follicle with a 0.2 cm area. Thyroid work-up showed normal thyroid function tests, and ultrasound described nodules on the left lobe, the largest measuring 1.7 x 1.3 x 1.0cm, TIRADS 3. Fine needle aspiration biopsy was done showing colloid goiter with cystic change. This highlights the management issue arising from a rare case of papillary thyroid carcinoma in an ovarian teratoma in a patient with thyroid nodules.

Treatment options range from aggressive measures including bilateral salpingo-oophorectomy and total thyroidectomy with subsequent radioactive iodine therapy, to surgical removal of the teratoma with serial monitoring of the thyroid with ultrasonography.

KEYWORDS

papillary thyroid carcinoma, teratoma

PP-T-08

MALIGNANCY RISK OF FOLLICULAR NEOPLASM WITH VARIABLE CUT-OFFS OF TUMOR SIZE: A SYSTEMIC REVIEW AND META-ANALYSIS

<https://doi.org/10.15605/jafes.038.AFES.161>

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INTRODUCTION

The decision on diagnostic lobectomy for follicular neoplasm has challenged clinicians. This meta-analysis investigates whether an appropriate size cut-off exists to recommend thyroid surgery for thyroid nodules diagnosed as follicular neoplasm by fine-needle aspiration.

METHODOLOGY

Ovid-Medline, EMBASE, Cochrane, and KoreaMed databases were used to search studies reporting the malignancy rate of follicular neoplasm/suspicious for a follicular neoplasm (FN/SFN) according to tumor size through July 2022. The search terms 'fine needle aspiration,' 'follicular neoplasm,' 'lobectomy,' 'surgery,' and 'thyroidectomy' were used.

RESULTS

Fourteen observational studies with 2016 cases of FN/SFN nodules with postsurgical pathologic reports were included, and two studies reported malignancy rates with various tumor sizes. The pooled malignancy risk of FN/SFN nodules according to size as below: the odds ratio (OR) 2.29 (95% CI: 1.68–3.11) with cut-off of 4 cm (nine studies), OR 2.39 (95% CI: 1.45–3.95) with cut-off of 3 cm (three studies), and OR 1.81 (95% CI: 0.94–3.50) with cut-off of 2 cm (five studies). However, tumors ≥ 2 cm also showed a higher risk (OR 2.43, 95% CI: 1.54–3.82) based on the leave-one-out meta-analysis after removing one influence study.

CONCLUSION

Tumor size alone is not sufficient for determining diagnostic lobectomy for FN/SFN nodules; however, clinicians are warranted to monitor carefully FN/SFN nodules, especially in tumors larger than 2 cm, and discuss appropriate timing of surgery for FN/SFN nodules with patients.

KEYWORDS

follicular neoplasm, malignancy risk, tumor size cut-off, diagnostic lobectomy