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

## **Hearty Yao and Lizette Kristine Lopez**

University of Santo Tomas Hospital, Manila, Philippines

#### 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

# Ji Eun Jun, 1 Seung Eun Lee, 2 Tae Hyuk Kim<sup>3</sup>

<sup>1</sup>Kyung Hee University Hospital at Gangdong, Seoul, Korea <sup>2</sup>Ulsan University Hospital, Ulsan, Korea <sup>3</sup>Samsung Medical Center, Seoul, Korea

### 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  $\geq$ 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.