

and increased significantly in amount at 34 weeks. There were no constitutional symptoms. On examination, she was not tachypnoeic, with SpO, 98% under room air, BP 133/70 mmHg and HR 108 bpm. She appeared clinically euthyroid, with unremarkable physical findings. Initial blood tests including full blood counts, renal profile and liver function tests were all within normal ranges. Thyroid function tests indicated normal TSH (3.699 m IU/L) and fT4 (13.27 pmol/L). However, D-dimer levels were elevated (3.04 mg/L). Tuberculosis screening with sputum AFB was negative. CT imaging showed multiple bilateral scattered enhancing lung nodules, predominantly in the lower lobes, with possible haemorrhagic nodules in the left lower lobe. She was scheduled for elective caesarean section at 36 weeks with combined care from the respiratory, obstetric and anaesthesia teams.

CT-guided biopsy of the lung lesion at two weeks postdelivery confirmed metastatic follicular thyroid carcinoma.

### CONCLUSION

This case highlighted the slow and insidious nature of differentiated thyroid cancer with lung metastases which unfortunately were presented during pregnancy. Thorough evaluation in pregnant patients presenting with haemoptysis are of utmost importance.

# **EP A190**

# DIFFERENTIATED THYROID CANCER WITH POSITIVE ANTI-THYROGLOBULIN ANTIBODY AND FINDINGS OF DISEASE EVALUATION ON FDG PET-CT SCAN

https://doi.org/10.15605/jafes.039.S1.201

# Ahmad Zaid Zanial, Reana Devi Arunasalem,, Wan Muhd Anas Wan Hussain

Nuclear Medicine Department, Hospital Kuala Lumpur, WP Kuala Lumpur, Malaysia

## INTRODUCTION

Fluorodeoxyglucose positron emission tomography-computerised tomography (FDG PET-CT) imaging has been advocated in differentiated thyroid cancer (DTC) cases with negative radioiodine scan but elevated serum thyroglobulin. Although there is limited available data, FDG PET-CT is also used to assess patients with progressively increasing anti-thyroglobulin antibodies (anti-TG). We aimed to determine characteristics of anti-TG positive DTC patients referred for FDG PET-CT and their association with abnormal imaging findings.

#### **METHODOLOGY**

We performed a cross-sectional retrospective study of all DTC patients with positive anti-TG who were managed with radioiodine therapy in our institution and referred for FDG PET-CT. Those who defaulted on the PET-CT appointment and clinic follow up with incomplete documentation were excluded. Baseline nodal disease and metastasis were determined following the first radioiodine therapy.

#### **RESULT**

Majority were females (70.8%). Mean values for age and cancer duration were 51.29 and 7.13 years respectively. Papillary thyroid carcinoma was predominant (95.8%). Majority had baseline nodal involvement (87.5%); a quarter had detectable distant metastasis. Most patients underwent less than five sessions of radioiodine therapy (83.3%). Majority had negative radioiodine scan prior to PET-CT (87.5%). Cases of positive residual radioiodine-avid disease showed lower mean values of anti-TG compared to those with negative radioiodine scan (1423 vs. 4671 IU/mL, p <0.05). FDG-avid malignant disease was observed in 62.5%; three patients were considered to have mixed disease following the PET-CT assessment. Female gender and those with baseline nodal involvement were found to be significantly associated with FDG-avid disease (p <0.05).

# **CONCLUSION**

FDG PET-CT has an important role in evaluating DTC patients with positive anti-TG. Those with negative radioiodine scan had higher mean values of anti-TG. Females and patients with baseline nodal involvement were associated with FDG-avid disease.

# **EP A191**

# CLINICAL CHARACTERISTICS AND DEFINITIVE TREATMENT FOLLOWING THYROID STORM: 10-YEAR EXPERIENCE

https://doi.org/10.15605/jafes.039.S1.202

# Aina Nadhirah Shahar, Noor Hafis Md Tob, Raja Nurazni Raja Azwan

Endocrine Unit, Department of Medicine, Hospital Putrajaya, Putrajaya, Malaysia

## INTRODUCTION

The prevalence of thyroid storm is 0.2 per 100,000 people per year with mortality rates varying from 11% to 25%. Given the rarity of occurrence and the high mortality rates associated with thyroid storm, it is imperative to understand the definitive therapy pattern following such an event.



### **METHODOLOGY**

We conducted a retrospective review of the medical records of patients diagnosed with thyroid storm at Hospital Putrajaya between September 2013 and December 2023. Demographic data, comorbidities, definitive treatments, and patient outcomes were collected and analysed.

## **RESULT**

We included 30 patients with thyroid storm. Most of the subjects were Malay and female. Mean age at diagnosis of thyroid storm was 42 years. Thyroid storm occurred after a mean duration of 57 months following diagnosis of thyrotoxicosis. Seven patients (23.3%) presented with thyroid storm as the initial clinical manifestation of thyrotoxicosis. Most were triggered by respiratory tract infections, followed by gastrointestinal and urinary tract infections. Three patients (10%) died due to multiorgan failure. Thirteen subjects (43.3%) received definitive treatment: twelve (40%) received radioactive iodine and one underwent thyroidectomy. Eight (26.7%) defaulted on follow-up. Three patients (10%) were on medical therapy and undecided on definitive treatment. The mean duration between thyroid storm and definitive treatment was about 5 months.

## **CONCLUSION**

In our cohort, majority of patients with thyroid storm had similar clinical characteristics to those in previous studies. The mortality rate was slightly lower than in previous studies. Less than half of the patients received definitive treatment. Therefore, measures should be taken to improve our post-thyroid storm management.