# PP-22

## The Imaging Performance of Preoperative Cervical Ultrasonography and 99mTc-Sestamibi Scintigraphy in Primary Hyperparathyroidism: A Single Centre Experience

https://doi.org/10.15605/jafes.034.S34

**Ho JH,[1] Tee HC,[1] Siti Zubaidah S,[2] Doreen Lee LP,[2] Fung YK,[1] Serena Khoo SK[1]**
[1]*Endocrinology Unit, Hospital Queen Elizabeth II, Malaysia*
[2]*Endocrinology Surgery Unit, Hospital Queen Elizabeth II, Malaysia*

### INTRODUCTION
Primary hyperparathyroidism is the third commonest endocrine disorder globally. Parathyroidectomy provides the only curative treatment in the management of primary hyperparathyroidism (PHPT). Therefore, accurate preoperative localisation by cervical ultrasonography (US) or 99mTc-sestamibi scintigraphy study (Sestamibi) of enlarged pathological parathyroid gland is crucial.

### METHODOLOGY
All PHPT cases who underwent parathyroidectomy and had preoperative localisation by either cervical US, Sestamibi scan or a combination of both in Queen Elizabeth II Hospital from year 2012 to 2018 were retrospectively analysed. The imaging findings were compared to intraoperative findings and histopathological examination correlation of parathyroid lesions.

### RESULTS
40 patients had parathyroidectomy and intraoperatively, 92.5% (37/40) were single-gland and 7.5% (3/40) were multiple-gland diseases. 80% (32/40) were parathyroid adenomas and 20% (8/40) were parathyroid hyperplasias. All patients had US scan performed and 77.5% (31/40) of patients had Sestamibi scan. Cervical US detected enlarged parathyroid glands in 55% (22/40) and Sestamibi in 100% (31/31) of the cases. US demonstrated a sensitivity of 53.8% and positive predictive value of 95.5% while Sestamibi alone or in combination with US demonstrated a sensitivity of 100% and positive predictive value of 71%. 73.3% (11/15) of patients who had Sestamibi following negative US findings correctly identified abnormal parathyroid gland intraoperatively. 5% (2/40) of the cases did not achieve remission postoperatively.

### CONCLUSION
Combination of both US and Sestamibi scan may increase the success of localizing abnormal parathyroid gland. However, in our centre selective use of Sestamibi following negative US findings may be more cost effective.

# PP-23

## The Great Mimicker – Tuberculosis

https://doi.org/10.15605/jafes.034.S35

**Farrah WMS, Lavanya N, Yusniza Y**
*Hospital Sungai Buloh, Selangor, Malaysia*

### INTRODUCTION
Endocrinopathies have been reported to occur in patients with tuberculosis.

### METHODOLOGY
We present 2 case reports illustrating pituitary gland tuberculosis in the immunocompromised i.e. in retroviral disease and in poorly controlled diabetes.

### RESULTS
A 40-year-old man, with retroviral disease and smear-positive tuberculosis was referred for further evaluation of a 2 week-history of ataxic gait. History revealed that patient had erectile dysfunction and postural giddiness with double vision. Examination findings showed diplopia in all 4-gaze direction with no cerebellar signs. Cerebrospinal fluid analysis showed increased proteins with low/ normal glucose levels. Magnetic resonance imaging of the brain showed left fronto-temporal enhancing lesion with a suprasellar mass. Biochemical investigations suggest hypocortisolism and hypothyroidism. Patient was started on levothyroxine and hydrocortisone replacement therapy adjuvant to tuberculous meningitis treatment. Patient is currently 14 months into anti-tuberculous therapy, and resolution in the aspect of visual, neurological symptoms and radiological findings were seen. Repeated brain imaging showed resolution of white matter lesions and unchanged suprasellar mass. A 43-year-old lady, presented with hyperosmolar hyperglycemic syndrome (HHS) with acute delirium and agitation. Despite resolution of HHS, she constantly had altered mentation. Magnetic resonance imaging of the brain ensued and showed lobulated enhancing hypothalamic, both mammillary body, optic chiasm and pituitary stalk lesions suggestive of chronic granulomatous disease. Computed tomography of the thorax, abdomen and pelvis revealed consolidation over the upper lobe of the right lung warranting tuberculosis to be excluded. Further investigations showed that she also has concomitant hypocortisolism with hypothyroidism. Cerebrospinal fluid analysis showed normal glucose with elevated protein levels. She was diagnosed with tuberculoma complicated by hypopituitarism. Empiric tuberculosis treatment was started with the patient showing good response to therapy.

### CONCLUSION
Physicians should be aware of extrapulmonary manifestations of tuberculosis, not uncommonly, the endocrinopathies.