

Lindau syndrome. Thyroid ultrasonography and retinal examination were normal. Our clinical dilemma was whether both adrenal lesions were pheochromocytomas. Gallium-68 PET/CT showed significant uptake in the left adrenal mass, indeterminate on the right. A genetic study identified a pathogenic variant c.234\_235dup in exon 4 of the MAX gene. Henceforth, bilateral pheochromocytoma was highly considered. Because of the metastatic potential of the disease, he underwent bilateral adrenalectomy.

### CONCLUSION

Each PPGLs cluster has a unique clinical, biochemical and imaging phenotype which can help clinicians deliver a personalized treatment strategy for patients with PPGLs. Precision medicine approach to PPGLs should be more widely available and become the standard of care in our nation.

# **EP\_A007**

## LATERAL APPROACH RETROPERITONEOSCOPIC ADRENALECTOMY: A SINGLE-CENTRE MALAYSIAN EXPERIENCE

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### INTRODUCTION

Laparoscopic or retroperitoneoscopic adrenalectomy is now the preferred approach when adrenalectomy is indicated. We report the first series of Lateral Approach Retroperitoneoscopic Adrenalectomy.

## METHODOLOGY

Between 2013 and 2023, a total of 46 patients (28 males,18 females; mean age 48.4 years) were referred for minimally invasive adrenalectomy. The surgeon, a urologist, was trained in minimally invasive surgery and is a proponent of the lateral approach retroperitoneoscopic technique. Twenty-six cases involved the left side and 20 cases involved the right. The size of the lesions ranged from 6 to 80 mm (mean = 30).

### RESULT

Mean surgery time was 90.8 minutes and mean hospital stay was 2.8 days. Two cases were converted to transperitoneal lateral approach due to the need to perform lymph node dissection. Two patients received blood transfusion.

### CONCLUSION

Lateral approach retroperitoneoscopic adrenalectomy is safe and suitable for a wide range of adrenal pathologies and offers consistent clinical outcomes. When paracaval/ paraaortic lymph node dissection is necessary, it can also be converted to a transperitoneal approach. Incidentalomas are common in the private sector due to ready access to axial imaging.

# **EP\_A008**

## GERIATRIC ONSET OF PHEOCHROMOCYTOMA

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## INTRODUCTION/BACKGROUND

Elderly pheochromocytoma (age  $\geq 65$  years) is a rare phenomenon, however, there have been increased detection rates because of advances in imaging and longer life expectancy. At Putrajaya Hospital, there was a total of 60 cases of pheochromocytoma between 2013 to 2023, with only 10% (6 cases) being in the elderly category.

#### CASE

We present two cases of pheochromocytoma in the elderly who presented as adrenal incidentalomas.

An 84-year-old Malay female with hypertension, type 2 diabetes mellitus(T2DM), and chronic kidney disease (CKD) stage 2 initially presented with palpitations, and was noted incidentally to have a right adrenal mass on abdominal ultrasound. Workup revealed elevated 24-hour urinary metanephrine 14.3 umol (0.33-1.53) and 24-hour urinary normetanephrine 4.6 umol (0.88-2.88). Adrenal CT revealed a well-defined right adrenal lesion measuring (3.5 x 3.2 x 3.4 cm) with plain HU +35. Patient underwent an uneventful open right adrenalectomy which revealed an adrenal tumour measuring  $6.5 \times 4 \times 5$  cm with capsular breach. She was discharged well after 6 days. Histopathology confirmed right adrenal pheochromocytoma with vascular and capsular invasion. Postoperatively, blood pressure was controlled on two antihypertensives with normal 24-hour urinary metanephrine and normetanephrine.

A 71-year-old Chinese female with T2DM, hypertension, and CKD stage 5 presented with incidental findings of a right adrenal mass on abdominal ultrasound during CKD workup. 24-hour urinary metanephrine revealed elevated urinary metanephrine 19.56 umol (0.33-1.53) and 24-hour urinary normetanephrine 55.66 umol (0.88-2.88).



Adrenal CT revealed a right adrenal lesion measuring 5.1 x 5 x 5.7 cm with plain HU +24. The patient underwent an uneventful right open adrenalectomy and was hospitalized for 4 days. Histopathology confirmed right adrenal pheochromocytoma measuring 6 x 5 x 5.5 cm with no capsular breach. Postoperatively, blood pressure was controlled on one antihypertensive with normal 24-hour urinary metanephrine and normetanephrine.

### CONCLUSION

Screening for elderly pheochromocytoma should not be missed and these patients should be managed in highvolume endocrine surgery centres to minimize operative complication rates.

# **EP\_A009**

## PRIMARY ADRENAL LYMPHOMA WITH PRIMARY ADRENAL INSUFFICIENCY: A CASE REPORT

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### INTRODUCTION/BACKGROUND

Primary adrenal lymphoma is a rare form of lymphoma and affects bilateral adrenal glands in most cases. This condition is often associated with adrenal insufficiency. We hereby report a case of bilateral primary adrenal lymphoma presenting with adrenal insufficiency in our centre.

### CASE

A 58-year-old male with underlying hypertension presented with a 3-month history of dull lower abdominal pain, nausea, anorexia, postural giddiness, tiredness and weight loss of 5 kg. He denied any history of fever or night sweats.

At presentation, his blood pressure was 116/70 mmHg despite not taking his three antihypertensive medications for the past few days. Abdominal examination revealed bilateral flank fullness. Blood investigations showed hyponatraemia and hyperkalaemia. On clinical suspicion, early morning cortisol was sent and came back at 322 nmol/L, which was considered low in an ill patient. He was managed as adrenal insufficiency and was started on hydrocortisone replacement. Subsequently, a computed

tomography (CT) of the thorax, abdomen and pelvis with adrenal protocol was performed which revealed bilateral suprarenal masses with locoregional invasion.

Further workup showed elevated Lactate Dehydrogenase (LDH). Tuberculosis workup and fungal culture and sensitivity were all negative.

Biopsy and histopathological examination of the left suprarenal lesion revealed diffuse large B-cell lymphoma. Chemotherapy was initiated during the admission. Unfortunately, his stay was complicated with septic shock secondary to pneumonia post-induction of chemotherapy. He completed a 10-day course of antibiotics and inotropes were weaned off prior to discharge. He was advised to follow up for reassessment prior to commencing the subsequent chemotherapy cycles.

### CONCLUSION

Primary adrenal lymphoma is rare. However, this diagnosis should be considered in a patient presenting with bilateral adrenal masses and adrenal insufficiency. In such cases, an early adrenal biopsy is crucial to confirm the diagnosis.

# **EP\_A010**

## USE OF PLASMAPHERESIS IN THE MANAGEMENT OF SEVERE HYPERTRIGLYCERIDEMIA IN A PATIENT PRESENTING WITH DKA AND NSTEMI: A CASE REPORT

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## INTRODUCTION/BACKGROUND

Severe hypertriglyceridemia is defined as triglyceride level >11.3 mmol/L and is associated with significant morbidities including pancreatitis and atherosclerotic cardiovascular disease. A commonly acquired cause is insulin resistance associated with obesity and type 2 diabetes.

### CASE

We report a case of a 49-year-old male with underlying diabetes mellitus, fatty liver and class II obesity (BMI 37) who was admitted for severe diabetic ketoacidosis