

### CONCLUSION

Despite a total RAI dose of 40MCi, her Graves' Disease remained active and thyroidectomy would be the next option. Her resistance to RAI may be related to her predominant pattern of elevated fT3 levels. The mechanism of this is unclear but may be related to impaired RAI uptake by the thyroid gland. Future studies may be useful to evaluate this further.

# **PA-A-38**

## CHARACTERISTICS OF COVID-19 PATIENTS WITH HYPERGLYCAEMIC EMERGENCY AND MORTALITY OUTCOMES: SINGLE CENTRE EXPERIENCE IN PAHANG

https://doi.org/10.15605/jafes.037.S2.44

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### INTRODUCTION

Individuals with diabetes have similar risk of contracting COVID-19 infection compared to those without diabetes. However, COVID-19 patients with diabetes are at a higher risk for severe outcomes and death. The occurrence of hyperglycaemic emergency and diabetic ketoacidosis (DKA) may worsen the outcomes of COVID-19 infection. This study will determine the characteristics of COVID-19 patients admitted with hyperglycaemic emergency and mortality outcomes in Hospital Sultan Haji Ahmad Shah, Temerloh, Pahang.

### METHODOLOGY

All electronic records of COVID-19 patients admitted from March 2021 until March 2022 were reviewed for occurrence of hyperglycaemic emergency. Data regarding demographics, clinical presentation, laboratory investigations and clinical outcomes were collected. Further analysis with patients subcategorised into 2 timelines: March-December 2021 (group 1) and January-March 2022 (group 2) reflecting two surges of COVID-19 admission to the hospital was done.

#### RESULTS

Twenty-four COVID-19 patients with hyperglycaemic emergency [mean age 56.7 (SD 15.6) years, 54.2% female, 79.2% Malay ethnicity, 95.8% type 2 diabetes mellitus, 54.2% unvaccinated, 70.8% category 5 infection] were analysed. Majority of patients had DKA at 79.2% [mean pH 7.16(SD 0.12), mean HCO<sub>3</sub> 10.80 (SD 3.07), mean glucose at diagnosis 25.3 (SD 11.0) mmol/L]. The mean length of hospitalisation was 11.42 (SD 7.4) days and mortality rate was 63.2%. Nine DKA cases were detected in group 1 compared to 10 cases during the shorter timeline in group 2. All patients had resolved DKA but the majority succumbed later due to complications of COVID-19 infection. Mortality rates in both groups were 66.7% (n=6) and 60% (n=6), respectively.

### CONCLUSION

Despite high occurrence of uncontrolled diabetes during COVID-19 infection in this cohort, only a small proportion had hyperglycaemic emergency. In both timeline of hospitalisation surge, COVID-19 patients with concomitant hyperglycaemic emergency had poorer prognosis.

# **PA-A-39**

# A CASE OF HYPERCALCEMIA CRISIS IN PREGNANCY DUE TO GIANT PARATHYROID ADENOMA

https://doi.org/10.15605/jafes.037.S2.45

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#### INTRODUCTION

Hypercalcemia in pregnancy affects 0.03% of reproductive women. Complications are directly related to maternal calcium level and include maternal nephrolithiasis, kidney injury, pancreatitis, pre-eclampsia and fetal loss. Primary hyperparathyroidism accounts for >90% of cases.

### CASE

We report a 41-year-old female who presented at 4 weeks of gestation with a 1-week history of polyuria and 3-day history of epigastric pain.

Laboratory investigations showed the following: severe hypercalcemia with corrected serum calcium of 5.04 mmol/L, low serum phosphorous at 0.88 mmol/L, elevated intact PTH at 45.4 (NR:1.6-6.0 pmol/L), acute kidney injury with serum creatinine of 221 umol/L, and pancreatitis with serum amylase of 368 (NR: 62-106 u/L). Electrocardiogram showed Osborn waves. Kidney ultrasound showed bilateral renal medullary nephrocalcinosis with nephrolithiasis. Neck ultrasound revealed a 2.8x2.9x5.1 cm well defined solid lesion postero-inferior to the right thyroid lobe suggestive of parathyroid tumour.



Oral cinacalcet and subcutaneous calcitonin were initiated when saline diuresis failed to lower her calcium below 4 mmol/L. Calcitonin was discontinued after 2 days due to intolerability. At the 5<sup>th</sup> hospital day, serum calcium and creatinine levels decreased to 2.77 mmol/L and 103 umol/L, respectively, with high volume intravenous saline and cinacalcet.

A multidisciplinary discussion was done and the plan was to continue oral cinacalcet and parathyroidectomy at the second trimester. Unfortunately, serial beta-hCG showed decreasing levels and transvaginal ultrasound confirmed fetal nonviability. Left inferior parathyroidectomy was then performed on the same setting at day 7 of presentation. Histopathologic examination reported giant parathyroid adenoma weighing 23 g. Her calcium level normalised and she remained normocalcemic at follow-up 5 months post-surgery.

### CONCLUSION

Our case highlights the management challenges for hypercalcemia in pregnancy due to safety concerns on standard pharmacotherapy and surgery. Acute management of severe hypercalcemia in pregnancy requires timely multidisciplinary decisions to achieve the best outcome and minimise morbidity and mortality.

# **PA-A-40**

## SEVERE HYPERTRIGLYCERIDEMIA SUCCESSFULLY TREATED WITH INSULIN INFUSION: A CASE REPORT

https://doi.org/10.15605/jafes.037.S2.46

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#### INTRODUCTION

Patients with severe hypertriglyceridemia (HT) are at risk of developing life-threatening acute pancreatitis and cardiovascular disease. There is no standard guideline on managing severe HT in acute settings. Apheresis, heparin and insulin therapy has been utilised and reported.

## CASE

We report a 42-year-old male who was referred to us from private healthcare for severe HT. He has hypertension and dyslipidaemia for 1 year and was prescribed with atorvastatin and fenofibrate for lipid management. He was only recently diagnosed with diabetes mellitus (DM) with HbA1c of 13%. There was no family history of hyperlipidemia or ischaemic heart disease. He did not have any abdominal pain or chest pain. On examination, there were multiple eruptive xanthomatas over the extensor surface of both elbows and knees and at the Achilles tendon area. Laboratory investigations revealed severe HT with serum triglyceride (TG) of 44.6 mmol/L and total cholesterol of 19.6 mmol/L. His blood exhibited thick and milky supernatant. Serum amylase was not elevated. Liver function test was normal. In view of severe HT, the patient was admitted and variable rate insulin infusion was started. His TG decreased progressively to 22.7 mmol/L by day 2 of admission and finally to 10.7 mmol/L by day 6 of admission. He was discharged on statin and fenofibrate together with his antihyperglycaemic medications. Screening for his family members was also done. Although there was no family history, we planned for genetic study for him soon.

### CONCLUSION

This case showed successful therapy for severe HT with insulin infusion. It is non-invasive and cost-effective treatment option for severe HT. Rapid reduction of high TG is important to reduce risk of pancreatitis.

# **PA-A-41**

# ACROMEGALY WITH SPONTANEOUS VENTRICULOSTOMY – A RARE PHENOMENON

https://doi.org/10.15605/jafes.037.S2.47

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#### INTRODUCTION

Spontaneous ventriculostomy is a unique condition that occurs in patients with chronic obstructive hydrocephalus wherein spontaneous ventricular rupture results in communication between the ventricular system and subarachnoid space. We present a case of acromegaly who presented with spontaneous ventriculostomy on magnetic resonance imaging (MRI) of the pituitary with no prior history of neurosurgical intervention.

## CASE

A 66-year-old male with chronic hypertension presented with long standing bilateral peripheral vision loss, worsening over the right eye for 3 months, obstructive sleep apnea symptoms and no symptoms of pituitary apoplexy. Clinically, he had classical features of acromegaly and ophthalmological assessment confirmed bitemporal hemianopia with no optic atrophy.