CASE

A 76-year-old male with TSHoma measuring 15 mm x 15 mm x 14 mm was conservatively managed for 5 years with cabergoline as he refused surgery. He presented early this year with fever, atrial fibrillation with rapid ventricular response and pneumonia requiring non-invasive ventilation. Burch-Wartofsky score was 60, consistent with thyroid storm. His fT4 and fT3 were 69.8 pmol/L (11.5-22.7 pmol/L) and 21.7 pmol/L (3.5-6.5 pmol/L) respectively. TSH was inappropriately normal at 3.74 mIU/L (0.55-4.78mIU/L). In intensive care, intravenous octreotide infusion at 50 mcg/hour was commenced. After 48 hours, ft4, ft3 and TSH reduced to 46pmol/L, 6.8 pmol/L and 0.52 mIU/L, respectively. Intravenous octreotide was converted to subcutaneous short-acting octreotide, titrated up to 100 mcg TDS. Glucocorticoids, carbimazole and betablockers were also used. After 5 days, his fT4, fT3 and TSH markedly reduced to 18.7 pmol/L, 4.2 pmol/L and 0.32 mIU/L, respectively. He was then overlapped with subcutaneous long-acting lanreotide. Repeat imaging showed unchanged size and extent of the macroadenoma. Despite re-counselling for surgery, he opted for long-term lanreotide and remains controlled to date.

Only three cases of TSHoma complicated by thyroid storm have been reported. In all cases, thyroid storm occurred after transsphenoidal surgery. Thionamides and beta-blockers were the mainstay of therapy. To our knowledge, our case is the first to use intravenous octreotide infusion in the acute management of thyroid storm. As TSHomas express somatostatin receptors (SSTR), especially SSTR 2 and SSTR 5, SRLs target these receptors to reduce TSH secretion.

CONCLUSION

Thyroid storm is an extremely rare complication of TSHoma. In this case, the use of short-acting SRL in conjunction with short-term antithyroid drugs, glucocorticoids and beta-blockers were efficacious in the acute management of this emergency.

EP_A053

PITUITARY METASTASIS: A RARE PRESENTATION OF SMALL CELL LUNG CANCER

https://doi.org/10.15605/jafes.038.S2.71

Meng Loong Mok,[1] Shu Teng Chai,[1] Vivithirah K. Arjunan Roy,[1] Norsarah Shamsudin[2]

[1]*Endocrine Unit, Department of Medicine, Hospital Sultanah Aminah, Johor Bahru, Johor, Malaysia*

[2]*Department of Radiology, Hospital Sultanah Aminah, Johor Bahru, Johor, Malaysia*

INTRODUCTION/BACKGROUND

The pituitary gland is a rare site for metastasis, with breast and lung cancers being the most common primary malignancies implicated in such instance. Most pituitary metastasis are clinically silent and diagnosed incidentally during radiological evaluation of brain metastasis.

CASE

We describe an elderly male, who had advanced small cell lung carcinoma diagnosed after his initial presentation of left cerebellar and pituitary metastatic lesions.

A 77-year-old ex-smoker complained of headache and vomiting for six months. Brain MRI showed a left cerebellar cystic lesion (3.9 x 4.6 x 3.3 cm) with mass effect. Additionally, a lobulated pituitary mass with posterior pituitary involvement and suprasellar extension was seen (1.3 x 1.3 x 1.0 cm and 1.2 x 1.4 x 1.0 cm for sellar and suprasellar components respectively). Following excision of the left cerebellar lesion, the patient was discharged. Ten days later, he was readmitted for hospital-acquired infection with transient hypotension. Stress dose of hydrocortisone was commenced for a low morning cortisol of 81.8 nmol/L. Both subnormal TSH (0.047 mIU/L; Normal: 0.35 – 4.94) and free T4 (8.59 pmol/L; Normal: 9.01 – 19.05) were attributed to sick euthyroidism. Prolactin was slightly elevated. There was no diabetes insipidus. A right upper lobe lung mass with mediastinal and right hilar lymphadenopathy were evident from contrast-enhanced CT thorax, abdomen, and pelvis. Endoscopic ultrasound guided fine-needle biopsy of aortopulmonary node was performed. Histopathological examinations of both specimens (aortopulmonary node and cerebellar mass) were consistent with small cell lung carcinoma. He subsequently underwent whole brain radiotherapy. Unfortunately, he passed away during the treatment course.

CONCLUSION

Pituitary metastasis is rare and exhibits a predilection for the posterior pituitary. Clinical manifestations of pituitary metastasis, if present, include visual field defects, cranial

diabetes insipidus, anterior pituitary hormone deficiency, and headache. Its presence should be suspected when a pituitary tumour involves the posterior pituitary, especially in an elderly patient.

EP_A054

METYRAPONE AS A BRIDGING THERAPY IN FLORID CUSHING'S DISEASE PATIENT PRIOR TO PITUITARY ADENOMECTOMY

https://doi.org/10.15605/jafes.038.S2.72

Muhamad Shafiq MY, Siti Sanaa WA, Masliza Hanuni MA, Nur Hidayah MM
Endocrinology Division, Medical Department, Hospital Sultanah Nur Zahirah, Kuala Terengganu, Malaysia

INTRODUCTION/BACKGROUND
Florid Cushing's disease gives rise to high morbidity and mortality due to its metabolic abnormalities and the risk of infection. Preoperative medical therapy with steroidogenesis inhibitors such as metyrapone, an 11β-hydroxylase inhibitor, may be considered if surgery is delayed or rapid reduction of cortisol is needed in patients with severe Cushing's who have potentially life-threatening metabolic, infectious or thromboembolic cardiovascular complications.

CASE
We describe a 31-year-old female who presented with lethargy and a short history of body acne, proximal muscle weakness, and hair loss for a month. She had missed her menses for two months. Upon examination, she was hypertensive (BP 190/112 mmHg), BMI was 26 kg/m^2. She had hirsutism, hyperpigmentation over her lips, knuckles, and nail folds, facial and body acnes, alopecia, proximal muscle weakness, acanthosis nigricans, dorsocervical and supraclavicular fat pads and purplish striae over her abdomen.

Initial blood results revealed severe hypokalaemia (1.9 mmol/l), metabolic alkalosis (HCO3 41.3 mmol/l), HbA1c 9.2% and transaminitis (ALT 324 U/L, AST 130 U/L) which precludes initiation of ketoconazole. ODST was not suppressed with a cortisol level of 1406 nmol/l, and HDDST showed 50% reduction of cortisol from baseline (baseline 1059 nmol/l, post 530 nmol/l). 24-hour urine cortisol was markedly elevated at 10,352 nmol/day. ACTH level was raised at 38.4 pmol/L. Pituitary MRI demonstrated a bulky left pituitary gland measuring 0.6 cm x 0.7 cm x 0.4 cm. CT TAP showed no evidence of a suspicious lesion/mass suggestive of ectopic Cushing's. She initially required high doses of basal-bolus insulin and potassium replacement together with four antihypertensives. We commenced her on Metyrapone 250 mg TDS and this was titrated to 500 mg TDS based on serial cortisol levels. We attained a cortisol level of 531 nmol/l with better control of her blood pressure and glucose level prior to pituitary adenomectomy with TSS.

CONCLUSION
This case illustrates the effectiveness of metyrapone in achieving normal biochemical clinical parameters pre-operatively before undergoing pituitary surgery.

EP_A055

UNCOMMON CAUSE OF SECONDARY EMPTY SELLA SYNDROME

https://doi.org/10.15605/jafes.038.S2.73

Sharifah Noor Adrilla Long Mohd Noor Affendi, Mohd Sofi Hafizi Sarip @ Ma'arof, Noor Lita Adam, Nor Afidah Karim
Endocrine Unit, Department of Medicine, Hospital Tuanku Jaafar, Seremban, Malaysia

INTRODUCTION/BACKGROUND
The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic has led to detrimental outcomes worldwide, leading to millions of deaths. SARS-CoV-2 vaccines are a critical step for many countries in battling with this infection. Recently, there are increasing cases of endocrinopathy, including hypophysitis, associated with SARS-CoV-2 vaccination.

CASE
We describe a patient with hypophysitis as a sequalae of COVID-19 vaccination.

A 48-year-old male, with a history of pulmonary tuberculosis who completed treatment in 2016, presented with fever, chills, postural hypotension and left upper limb weakness. The symptoms appeared 2 weeks after his 1st dose of SARS-CoV-2 vaccination.

He was initially treated as acute disseminated encephalomyelitis (ADEM) and meningoencephalitis. During admission, he developed septic shock with multiorgan involvement. He remained hypotensive despite improvement of septic parameters. Hence, short synacthen test was done which revealed inadequate cortisol response.

Inpatient cerebrospinal fluid (CSF) investigations were normal. Cranial MRI showed asymmetrical white matter hyperdensities; possible aetiology included infectious and inflammatory causes. He was discharged well with oral hydrocortisone 10 mg bd.