

EP_A109**OBSTACLES IN MANAGING GIANT PROLACTINOMA: A SUDDEN RESURGENCE WITH NEW ONSET SEIZURE IN GIANT PROLACTINOMA**

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Siti Zakiah Ahmad Daud, Syarifah Syahirah Syed Abas, Nor Afidah Karim, Yong Lit Sin, Noor Lita Adam

Endocrine Unit, Department of Medicine, Hospital Tuanku Ja'afar Seremban, Malaysia

INTRODUCTION/BACKGROUND

Prolactinoma is the most common type of secretory pituitary adenoma, caused by oversecretion of prolactin (PRL). Giant prolactinomas are uncommon, accounting for only 2-3% of all prolactinomas and are more common in males. Management of giant prolactinomas is also more challenging as these patients require a higher dose of dopamine agonist (DA) and are at risk of developing aggressive prolactinomas or carcinoma.

CASE

This is a case of a 29-year-old male who was diagnosed with giant prolactinoma at the age of 24, with extension to both cavernous sinuses (knops 4), causing 3rd ventricle compression. He was treated medically with an increasing dose of DA for the last 5 years. There was an improvement in both prolactin level and tumour size with cabergoline 1.5 mg daily (total weekly dose 10.5 mg) until the current presentation when he had a sudden increase in prolactin levels accompanied by new onset seizures.

Assay interference was excluded after 3 samples of serum prolactin levels sent to different platforms revealed almost similar results. Macroprolactinemia was also excluded after the PEG test came back negative. The cranial MRI also revealed a minimal increase in tumour size without any indication of tumour aggressiveness. Upon further inquiry, he admitted being less compliant with his cabergoline dose for the past year, with no apparent reason. He was reminded to strictly adhere to the prescribed dosage of DA, and the follow-up MRI of the pituitary was planned after 6 months. Indications for adjunctive therapy (i.e., transsphenoidal surgery for tumour enlargement despite compliance with medication) were also explained to the patient.

CONCLUSION

This case highlighted the challenges in managing giant prolactinomas, the differential diagnoses of biochemical relapse with new-onset seizure and the importance of medication adherence. We also highlight the indication for surgery in macroprolactinoma.

EP_A110**TRIPHASIC PHASE OF CENTRAL DIABETES INSIPIDUS (DI) POST TRANSPHENOIDAL SURGERY: A NORTHERN REGION GOVERNMENT HOSPITAL EXPERIENCE**

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Tat Chee Calvin Chang, Gerard Jason Mathews, Nor Shaffinaz Binti Yusoff Azmi Merican

Endocrinology Unit, Department of Medicine, Hospital Sultanah Bahiyah

INTRODUCTION/BACKGROUND

The transsphenoidal pituitary surgery approach is a potential cause of central diabetes insipidus (DI) due to its impact on the pituitary stalk. Triphasic DI is a rare manifestation of central DI. In the initial phase, patients experience polyuria secondary to axonal shock or injury of vasopressin-secreting neurons in the hypothalamus. In the second phase, there is transient inappropriate antidiuretic hormone secretion (SIADH) due to vasopressin leakage from the damaged posterior pituitary tissues. The third phase ensues if >80% of vasopressin-secreting neurons are destroyed.

CASE

A 44-year-old Malay female presented with sudden slurring of speech, numbness of the right upper limb and headaches. Her cranial CT and MRI showed pituitary macroadenoma (1.1 x 1.5 x 1.1 cm). Pituitary hormone profile was normal. Ten months later, she developed bitemporal hemianopsia with a repeated cranial MRI showing unchanged size of the sellar lesion. Eventually, she underwent transsphenoidal surgery and tumour excision for pituitary macroadenoma.

About 8 hours post-op, she developed polyuria with urine output of 400 ml/hour, sodium level: 145 mmol/L, urine sodium: <20 mmol/L, serum osmolality: 299 mmol/L, urine osmolality: 110 mmol/L which was consistent with central DI. Subcutaneous desmopressin was given on days 1 to 3 post-op.

On day 7 post-op, she developed SIADH as evidenced by serum osmolality of 241 mmol/L, urine osmolality of 527 mmol/L and urine sodium of 124 mmol/L.

Upon entering day 11, she had another episode of polyuria (200 ml/hour). Laboratory tests revealed serum sodium: 126 mmol/L, serum osmolality: 269 mmol/L, urine osmolality: 111 mmol/L and urine sodium: 111 mmol/L which were suggestive of central DI in the triphasic phase. Hence, subcutaneous desmopressin was resumed. Sodium levels normalized and she was discharged home clinically well on sublingual desmopressin.