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BALANCING THE SODIUM IN CRANIAL DIABETES INSIPIDUS AND RENAL SALT WASTING

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INTRODUCTION
Disorder of water and sodium homeostasis can occur with sellar and suprasellar lesion. Cranial diabetes insipidus (CDI) is a common complication, characterized by polyuria, dehydration and hypernatremia. The use of cisplatin for intracranial malignancy can cause renal tubular dysfunction resulting in renal salt wasting (RSW), presenting similarly as polyuria, hypovolaemia, but with hyponatremia instead. The diagnosis and management of co-existing CDI and RSW can be challenging. We report a case of pineal germinoma with CDI and concurrent cisplatin-induced RSW.

RESULTS
A 17-year-old male was admitted for recurrent seizure episodes and headache. His vital signs and electrolytes were normal. He has under-developed secondary sexual characteristics. Hormonal workup confirmed panhypopituitarism, and he received levothyroxine and hydrocortisone replacement. Pituitary MRI revealed pineal lesion with sellar and suprasellar extension. Endoscopic ventriculostomy and biopsy reported as germinoma. Postoperatively, he developed polyuria with hypernatremia of 167 mmol/L. A diagnosis of CDI was made and he responded well to desmopressin and required maintenance dose at 0.1 mg TDS. Subsequently, he received cisplatin-based chemotherapy. While on chemotherapy, despite usual replacement dose for desmopressin, levothyroxine and hydrocortisone, he developed polyuria (up to 5L/day), hypotension (BP 98/50 mmHg) and tachycardia (pulse 104 beats/minute). Laboratory results showed hyponatremia of 130 mmol/L, raised urine sodium (125 mmol/L) and urine osmolality (397 mOsmol/kg). Diagnosis of cisplatin-induced RSW was made. His desmopressin dose was maintained but intravenous isotonic saline and regular oral nutritional supplements was initiated to replace sodium and fluid loss. Post-chemotherapy, his serum sodium normalised with resolved polyuria.

CONCLUSION
Misinterpretation of recurring polyuria or hyponatremia in patient with CDI as under or over replacement with desmopressin can cause morbidity as treatment for CDI and RSW differs. Adequate fluid and salt replacement is the main treatment in RSW. Hydration status, laboratory investigations, especially urine osmolality and urine sodium, and regular serum sodium monitoring, can guide in early diagnosis and proper therapy.

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RELAPSE OF GRAVES' DISEASE FOLLOWING A PREGNANCY: A SINGLE CENTRE PROSPECTIVE OBSERVATIONAL STUDY

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INTRODUCTION
Relapse of Graves' disease (GD) is common in the postpartum period. One study showed that the overall relapse rate of GD following a pregnancy was 84%, as compared to that of 56% in women who did not become pregnant. We aim to determine the prevalence of relapsed GD during postpartum period in our centre.

METHODOLOGY
All pregnant women who were diagnosed with Graves' disease either before or during index pregnancy in endocrine clinic from October 2016 to May 2018 were followed up monthly throughout their gestation and 3- monthly after delivery till one year postpartum. All were managed according to standard care. Relevant demographic and clinical data were collected during outpatient visits.

RESULTS
Thirty-six patients (50% Malay, 33.3% Chinese, 2.8% Indian and 13.9% others) fulfilled the inclusion criteria. Median [interquartile range (IQR)] age and period of gestation at recruitment were 29 years old (25, 32.75) and 17.5 weeks (12, 23.5) respectively. Nearly half (47.2%) were diagnosed with GD within one to five years prior while only 8 (22.2%) had the diagnosis made during index pregnancy. Median (IQR) free thyroxine (T4) during the first trimester was 34.77 pmol/L (18.39, 77.46). Out of 16 patients in whom one-year postpartum data were available, half received antithyroid treatment throughout pregnancy and postpartum period while the other half had antithyroid medications withheld during gestation. Six (75% of eight patients) experienced relapse of GD after delivery. Median (IQR) time between delivery and relapse was 4.5 months (1.75, 6.50). Maternal age, duration of GD, timing of GD diagnosis in relation to index pregnancy and antenatal antithyroid treatment did not influence postpartum relapse of GD.

CONCLUSION
Three quarter of our pregnant women who had GD experienced relapse at approximately 4.5 months after delivery. Close monitoring of postpartum thyroid function is pertinent to avoid adverse complications.