ADULT

PP-01

CLINICAL CHARACTERISTIC OF ADRENAL INCIDENTALOMA FROM 2010 TO 2020 IN HOSPITAL PUTRAJAYA

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INTRODUCTION
Adrenal incidentaloma are lesions found incidentally on imaging. With widespread use of imaging in clinical practice, the incidence has increased. We describe the clinical characteristics of adrenal incidentaloma in an endocrine referral hospital in Putrajaya, Malaysia.

METHODOLOGY
This was a retrospective study reviewing medical records for adrenal lesions discovered for non-adrenal imaging from January 2010 to January 2020. Data for demographic, radiological characteristics, hormonal functionality and histopathology data were collected and analysed.

RESULTS
There were 164 identified patients, of which 100 (61%) were female. Site involvement was most frequent on the left (51.2%), followed by the right (40.2%); a few had bilateral lesions (8.5%). It was mostly seen in Malays (59.8%). Non-functioning adenoma was the most common diagnosis (78.1%). Among functioning adenomas, phaeochromocytoma incidence was highest (5%). The incidences of primary aldosteronism and Cushing's syndrome were similar (1.3%). Adrenal cortical carcinoma (ACC), adrenal metastasis and lymphoma were seen in 8.1%. ACC tended to occur between ages 40 to 49 years, whereas adrenal metastases were seen in older age groups. Functioning adenomas were spread out between ages 40 to 69 years. ACC were typically more than 4 cm at detection. Functioning adenomas varied in sizes: 74.8% of non-functioning adenomas measured 1 to 3.9 cm, and 15.1% were more than 4 cm. Hounsfield units for all functioning adenomas and ACC were >20 and varied in non-functioning adenoma.

CONCLUSION
Adrenal incidentaloma requires further assessment as the incidence of functional tumour or malignancies were seen in up to 20%. Clinicians should have a high index of suspicion when encountering any suspected adrenal lesions. Early referral to centres that provide investigation and management of adrenal incidentaloma should be made.

PP-02

PITUITARY METASTASIS UNVEILED FOLLOWING CRANIAL DIABETES INSIPIDUS UNMASKED BY STEROID

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INTRODUCTION
Pituitary metastasis is uncommon and may occur via haematogenous or meningeal spread. The infundibulum or posterior lobe are commonly involved causing cranial diabetes insipidus (CDI). However, CDI may be masked in patients with glucocorticoid insufficiency due to concurrent hypopituitarism.

RESULTS
Case 1: A 54-year-old woman with stage 3 left breast invasive ductal carcinoma presented with blurring of vision and left 3rd nerve palsy. Brain CT reported left cavernous sinus mass. She was treated as cavernous sinus syndrome with oral prednisolone 30 mg BD. Shortly after, she complained of polydipsia and polyuria, with serum sodium of 154 mmol/L. Paired urine osmolality measurement was 190 mOsm/kg confirming diabetes insipidus. Her symptoms improved and serum sodium normalised after oral desmopressin. Brain MRI revealed thickened infundibulum and posterior pituitary leptomeningeal enhancement suggestive of metastasis. Hormonal workup revealed hypopituitarism. She received hormonal replacement and intrathecal chemotherapy.

Case 2: A 64-year-old man with stage 3 nasopharyngeal carcinoma (NPC) on palliative chemotherapy was admitted for meningoencephalitis. On admission, he was septic and hypotensive, requiring inotropic support and was started on intravenous hydrocortisone. As his blood pressure improved, he developed polyuria up to 6 L/day. Endocrine consult was sought when his serum sodium increased from 144 mmol/L to 173 mmol/L. Urine specific gravity was 1.005 (reference value 1.015 to 1.025). He was started on SC desmopressin and IV hydration, with resolution of polyuria and hypernatremia. Brain MRI reported advanced NPC with extensive local infiltration including bilateral cavernous sinus and pituitary sella. Hormonal workup showed panhypopituitarism requiring thyroxine and hydrocortisone replacement.

CONCLUSION
Although rare, symptoms of diabetes insipidus in patients with malignancy should alert the physician for the possibility of pituitary metastasis. Failure to consider this diagnosis can lead to delay in treatment and complications.

PP-03

DIABETES INSIPIDUS MASQUERADING PITUITARY ADENOMA

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INTRODUCTION
Central diabetes insipidus (CDI) is rare with a prevalence of 1 in 25000, most commonly due to pituitary surgery or trauma (50%) and hypophysitis (15%). We reported a rare case of CDI masquerading as a pituitary adenoma.

RESULTS
A 54-year-old woman with diabetes mellitus presented with generalised seizure. She had polyuria >3L/day and polydipsia for 6 months. She had no menses since age 45, and no history of postpartum complications. Galactorrhoea, increased weight/shoe size, changes in facial appearance, headache, blurring of vision, postural dizziness and hypothyroid symptoms were absent. She was obese (body mass index 49 kg/m$^{2)}$, with BP 124/62, HR 62, and no postural hypotension. There were no abdominal striae, proximal myopathy, frontal bossing, spade-like hands nor bitemporal hemianopia. She had hypernatraemia (152mmol/L), high serum osmolality (320 mOsm/kg) and low urine osmolality (80 mOsm/kg). Urine osmolality increased to 340 mOsm/kg after desmopressin. She had central hypocortisolism (cortisol 14 nmol/L, ACTH 22 pg/mL), central hypothyroidism (fT4 7.1 pmol/L, TSH 0.58 mIU/L), hyperprolactinaemia (3387 mIU/L, 3974 mIU/L post-dilution) and secondary hypogonadism (oestradiol 232 pmol/L, LH <0.1 IU/L, FSH 1.4 IU/L). Random morning GH was 0.1 ng/mL. IGF-1 was not sent as there was no clinical suspicion of acromegaly. Pituitary MRI showed a well-defined enhancing sellar mass with suprasellar extension measuring 1.3 cm x 1.4 cm x 1.6 cm, suggestive of a pituitary macroadenoma with central necrosis and loss of posterior pituitary brightness on plain T1 MRI. The adenoma was removed via transsphenoidal surgery, and histopathology showed pituitary adenoma which stained positive for GH and prolactin. There was no evidence of hypophysitis on histology.

CONCLUSION
Pituitary adenomas rarely present as CDI. In few reports, all had concurrent hypophysitis on histopathology (1-4). Our patient had biochemically confirmed CDI and radiologic findings suggestive of adenoma and hypophysitis. However, histopathology only showed pituitary adenoma with no evidence of hypophysitis.

PP-04

HYPOGLYCEMIA AWARENESS AND MANAGEMENT STUDY (HAMS) – A RETROSPECTIVE REVIEW OF HYPOGLYCEMIA KNOWLEDGE AMONG HEALTH CARE PROVIDERS IN A SINGLE CENTER

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INTRODUCTION
Knowledge on management of hypoglycemia is essential for all healthcare providers (HCP). Poor management of hypoglycemia will lead to catastrophic consequences. The objective of this study is to evaluate the level of knowledge on hypoglycemia among HCP in Hospital Melaka.

METHODOLOGY
This was a retrospective review on level of hypoglycemia knowledge among HCP from various departments. All HCP who attended a Hypoglycemia Roadshow in Hospital Melaka in November 2019 were given an assessment which consisted of 10 questions to evaluate their knowledge on diagnosis, complications and management of hypoglycemia.

RESULTS
There were 422 participants consisting of 308 doctors and 114 non-doctors. The level of knowledge was divided into low (0-3 points), moderate (4-6) and high (7-10). High scores were seen in 56.16% (n= 237); the rest achieved moderate (35.31%, n=149) and low (8.53%, n=36) scores. We compared the level of knowledge between doctors and non-doctors: 41.94% of doctors achieved high scores as compared to 14.22% of non-doctors. However, this was not statistically significant (p=0.115). HCP from the medical department performed better with 28.67% achieving high scores compared to 27.49% in those from non-medical departments (p=0.00) Numerically, junior HCP (<5 years working experience) performed better with 40.76% obtaining high scores compared to their senior counterparts (≥5 years), with only 15.4% obtaining high scores. (p=0.331)