RESULTS
A total of 130 patients (86% females) were on active bisphosphonate treatment. Of these, 48 (36.9%) patients were from 70-79 years of age. Majority of the treatment was initiated by orthopaedic surgeons (63.8%) and endocrinologists (15.4%). Fragility fracture was the most common indication for bisphosphonate therapy in 56.9%. The most prevalent risk factors for osteoporosis were postmenopausal (80.7%), followed by prolonged steroid use (18.5%) and other endocrine disorders (11.5%). Only 35.3% (n=48) had bone mineral densitometry done prior to initiation of treatment. Less than 10% of patients had documented fracture risk assessment with FRAX. About 40% of patients had no baseline renal function prior to initiation of treatment. Referral for dental screening was not documented in 48.5% of patients. There was also a lack of counselling and documentation prior to the initiation of treatment. Majority of patients (86.9%) received vitamin D and calcium supplementation with bisphosphonate therapy.

CONCLUSION
A standardized osteoporosis pre-treatment checklist is required to ensure good and safe practice of treatment. Awareness and appropriate counselling among patients with osteoporosis on bisphosphonate treatment needs to be improved.

EP_A106

CASE REPORTS OF PRIMARY HYPERPARATHYROIDISM IN PREGNANCY

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Primary hyperparathyroidism (PHPT) during pregnancy is uncommon. Early detection is crucial due to its association with increased maternal and foetal morbidity and mortality. Diagnosis is challenging and requires high clinical suspicion due to nonspecific presentation and the overlap of symptoms of hypercalcemia with those of pregnancy. Furthermore, serum calcium is not routinely tested antenatally. The interpretation of serum calcium and parathyroid hormone levels differs significantly from that in nonpregnant patients due to physiological changes during pregnancy. Preoperative localisation and treatment options are limited due to uncertainties regarding safety in pregnancy. We present 2 cases of PHPT who underwent parathyroidectomy during pregnancy.

We retrospectively reviewed PHPT cases in Hospital Pulau Pinang from 2020 to 2023. Patients were identified from the laboratory database and clinical details were obtained from their medical records.

CASE
Two patients, with mean age of 34 years, were diagnosed with PHPT pre-pregnancy. The first patient was diagnosed with PHPT during routine blood testing for chronic myeloid leukaemia follow-up. She had left inferior parathyroidectomy and yet her post-operative serum calcium was persistently elevated. Repeated Tc99m sestamibi showed 2 foci of increased tracer uptake. During scheduled clinic visit, she informed us of her pregnancy. Exploratory parathyroidectomy was scheduled. The second patient was diagnosed with PHPT when she was admitted for acute pancreatitis. She was found to be pregnant when she was re-admitted for another episode of acute pancreatitis. Emergency parathyroidectomy was arranged due to persistent hypercalcemia despite on rehydration. Postoperatively, both were discharged with normalization of serum calcium level. However, the first patient had complete miscarriage in the second trimester; the second patient developed preeclampsia and delivered a preterm baby at 34 weeks.

CONCLUSION
Early parathyroidectomy in PHPT patients diagnosed at child-bearing age helps to prevent complications during pregnancy.

EP_A107

PITUITARY GLAND METASTASIS OF BREAST CANCER PRESENTING AS DIABETES INSIPIDUS

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INTRODUCTION/BACKGROUND
Metastasis to the pituitary gland is extremely rare and represents only 1% of pituitary tumours. The most frequently reported malignancies that metastasize to the pituitary gland are lung, renal and breast cancers.

CASE
A 49-year-old female with advanced left breast carcinoma with bone metastasis presented with a week's history of worsening back pain and bilateral lower limb weakness. On examination, vital signs were stable and neurological examination showed bilateral lower limb motor neuron lesions with muscle strength of 3/5 and loss of sensation

up to T4. During admission, she developed polyuria with hypernatremia. Laboratory examinations showed sodium of 150 mmol/L (NR: 136-145), serum osmolality of 318 mOsm/kg (NR: 275-295), urine osmolality of 142 mOsm/kg (NR: 275-295). Renal function, serum calcium, potassium and glucose were all normal. Anterior pituitary hormone panel showed panhypopituitarism with TSH: 0.24 m IU/L (NR: 0.27-4.2), FT4: 11.7 pmol/L (NR: 12-22), FSH: 7.35 IU/L (NR: 25.8-134) and LH: 5.92 IU/L (NR: 7.7-58.3). FSH and LH were low despite the patient being post-menopausal. The cortisol axis was not assessed as the patient was on dexamethasone. Cranial and pituitary MRI revealed parietal and occipital skull lesions, small right temporal and frontal brain lesions, and thickened pituitary stalk measuring 0.5 cm with a non-enhancing posterior pituitary lesion suggestive of metastasis.

Central diabetes insipidus occurs in less than 1% of patients with primary pituitary adenoma, while it is the presenting symptom in 70–80% of patients with pituitary metastasis. The radiological diagnosis is based on MRI which can highlight an iso-intense or hypo-intense mass on T1-weighted images with a high-intensity signal on T2-weighted images, a homogeneous enhancement with gadolinium and loss of the high signal pituitary signal intensity on T1-weighted images.

CONCLUSION

The prognosis for metastases to the pituitary gland is poor due to the presence of advanced neoplastic disease. Posterior pituitary lesions are rare, therefore being a red flag for metastasis.

EP_A108

NEUROSARCOIDOSIS PRESENTING WITH CENTRAL DIABETES INSIPIDUS AND SECONDARY AMENORRHEA

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INTRODUCTION/BACKGROUND

Sarcoidosis is a multisystem granulomatous inflammatory disorder with common involvement of the lungs, lymph nodes and heart. Neurosarcoidosis, especially hypothalamic-pituitary involvement, is a rare phenomenon (<10% of sarcoidosis patients). Recognizing this holds significance in guiding investigations and early commencement of treatment.

CASE

A 32-year-old nulliparous female with no prior medical illness, presented to the ophthalmology clinic with 6 months history of painless red eye, without cough or constitutional symptoms. She was managed as a case of left eye anterior uveitis. Further assessment to exclude tuberculosis revealed perihilar lobulated opacities on CXR, negative serial sputum AFB and positive tuberculin skin test (Mantoux) of 16mm. CT of the thorax showed multiple lung nodules with lymphadenopathies involving cervical, mediastinal, hilar and axillary regions. Bronchoscopy was negative for TB PCR and MTB culture had no growth. She was treated for latent PTB for 3 months. Further history revealed secondary amenorrhea and polyuria with polydipsia. Pituitary workup confirmed hypogonadotrophic hypogonadism [serum FSH: 2.9 IU/L, LH: 1.13 IU/L, estradiol: 52.8 pmol/L]. After an overnight water fasting, serum osmolality increased to 301 mOsm/kg, with hypernatremia (serum Na: 151 mmol/L) and markedly diluted urine (urine osmolality: 45 mOsm/kg). These were all suggestive of central diabetes insipidus. Other pituitary hormones were normal [serum cortisol: 573.5 nmol/L, TSH: 1.916 m IU/L and prolactin: 331.1 mU/L]. Pituitary MRI revealed an absence of a posterior pituitary bright spot, without a pituitary lesion. Since TB has been ruled out, multi-systemic sarcoidosis was considered. Serum angiotensin-converting enzyme was elevated at 72.80 U/L (NR 8-52). A respiratory consult concluded a stage 2 pulmonary sarcoidosis. She was started on oral desmopressin 60 mcg BID and hormone replacement therapy. Oral prednisolone at a dose of 0.5 mg/kg/day was initiated for sarcoidosis treatment.

CONCLUSION

Neurosarcoidosis is often diagnosed late due to a low index of suspicion. It should be included in the differential diagnosis when patient presented with hypothalamic-pituitary disorder as it is associated with higher morbidity. Corticosteroids and simultaneous hormonal therapy remain the mainstay of treatment.