the diagnosis of parathyroid carcinoma. Post operatively, the course was complicated with hungry bone syndrome. At discharge, the patient's iPTH and calcium level was reduced to 6.66 pg/ml and 2.20 mmol/L, respectively.

CONCLUSION

Size of parathyroid lesion, severe hypercalcaemia, significantly raised ALP and iPTH levels are clues to indicate parathyroid carcinoma as the cause of primary hyperparathyroidism.

EP_A045

COVID-19 MOVEMENT CONTROL ORDER RELATED OSTEOPOROTIC FRACTURE AND VITAMIN D DEFICIENCY IN AN ADOLESCENT MALE

https://doi.org/10.15605/jafes.038.S2.63

Suhasheni Rajendran,[1] Chu Ee Seow,[1] Jerri Chiu Yun Ling,[2] Hui Chin Wong[3]

[1]Department of Internal Medicine, Hospital Banting, Malaysia
[2]Sports Medicine Unit, Department of Orthopaedic, Hospital Tengku Ampuan Rahimah Klang, Malaysia
[3]Endocrinology Unit, Department of Internal Medicine, Hospital Tengku Ampuan Rahimah Klang, Malaysia

INTRODUCTION/BACKGROUND

COVID-19 pandemic had caused major impacts on various aspects of our life. In Malaysia, Movement Control Order was imposed in March 2020. For almost 2 years, school-going children and adolescents were not able to attend schools physically and their physical activity was confined to their room or house on most days.

CASE

We describe a case of a 14-year-old male, previously active in sports, who sustained a low trauma fracture at the right femoral neck in November 2021 following a prolonged period of extreme sedentary life along with poor dietary intake during the COVID-19 pandemic period. He underwent open reduction and screw fixation for the fracture. Postoperatively, he was initially treated with suboptimal physiotherapy due to worry of fragility fracture. He was thin with a low BMI (15.62 kg/m^2) and significant loss of muscle bulk in all limbs. Further laboratory tests showed vitamin D deficiency (15.3 nmol/L) and the dual energy x-ray absorptiometry (DXA) showed low Z-score for total spine (-2.2) and total hip (-3.9). He was treated with activated vitamin D and vitamin D_3 replacement. He was later referred to a sports physician for individualized post-operative rehabilitation. By then, he had a 2 cm shortening of the affected limb, which required a customized shoe for correction of the limb length discrepancy. With the customized shoe, he was able to progress his physical activities gradually, from brisk walking to slow jog then later running and cycling outdoors. Successive clinic visits showed remarkable improvement in physical fitness, sports participation and normalization of vitamin D levels. With guidance from a sports physician, he was able to resume sports activities eventually without limitation or difficulty. Repeated DXA scans within one year showed significant improvement.

CONCLUSION

Physical activity and vitamin D are important essentials in bone growth and bone health in adolescents.

EP_A046

A RARE CASE OF NONFUNCTIONING APPENDICEAL NEUROENDOCRINE TUMOUR (ANET) WITH BASE INVOLVEMENT NEEDING HEMICOLECTOMY

https://doi.org/10.15605/jafes.038.S2.64

Abdullah Shamshir Abd Mokti[1] and Raja Nurazni Raja Azwan[2]

[1]Endocrine Unit, Medical Department, Hospital Selayang, Malaysia
[2]Endocrine Unit, Medical Department, Hospital Tengku Ampuan Afzan, Kuantan, Malaysia

INTRODUCTION/BACKGROUND

Appendiceal neuroendocrine tumour (ANET) is the commonest appendiceal tumour found in 0.2–0.7% of surgical resections for suspected appendicitis. Peak incidence is at age 40-50 years with slight female preponderance. If diagnosed at a lower stage, survival is extremely good; local disease has 5- year survival rate (5-YSR) of between 95–100% and regional disease has between 85–100% 5-YSR. However, cases with distant metastasis present with relatively poor survival figures with 5-YSR less than 25%.

We report a rare case of a patient with ANET with involvement of the base of the appendix needing further anatomical and functional imaging and right hemicolectomy.

CASE

A 45-year-old female presented with acute right iliac fossa pain of less than 24 hours of duration with vomiting which led to a diagnosis of presumed appendicitis. She underwent laparoscopic appendectomy and intraoperatively was found to have adhesions with the abdominal wall and the appendix was only mildly inflamed. Histologic examination confirmed neuroendocrine tumour of the

appendix with base of appendix involvement. Contrast-enhanced CT showed suspicious nodule in both upper and lower lobes of the lungs. Gallium dotatate PET Scan showed no dotatate-avid lesions in the bowels, lymph nodes and lung metastases. Due to involvement of appendiceal base, a decision of hemicolectomy was made. Histopathology showed no evidence of tumour involvement in bowel.

CONCLUSION
Although ANETs are usually benign, non-functional and have good prognosis, it is important to identify features needing further anatomical and functional imaging which would determine whether right hemicolectomy is needed to prevent metastases or recurrence.

EP_A047

PEMBROLIZUMAB-INDUCED HYPOPHISITIS IN A PATIENT WITH UNDERLYING HYPOTHYROIDISM PRESENTING AS ADRENAL CRISIS: A CASE REPORT

https://doi.org/10.15605/jafes.038.S2.65

Abdullah Shamshir Abd Mokti[1] and Raja Nurazni Raja Azwan[2]
[1]*Endocrine Unit, Medical Department, Hospital Selayang, Malaysia*
[2]*Endocrine Unit, Medical Department, Hospital Tengku Ampuan Afzan, Kuantan, Malaysia*

INTRODUCTION/BACKGROUND
Pembrolizumab is a checkpoint inhibitor recently used to treat various types of malignancies. It is an analogue of programme-cell-death-1 (PD1) protein analogue involving immune T-cells and has been shown to cause immune-related adverse events including endocrinopathies. Most reports related to pembrolizumab were on thyroiditis.

We report a case of a patient presenting with adrenal crisis due to hypophisitis after after he was started on treatment with pembrolizumab.

CASE
A 73-year-old female with underlying hypothyroidism and hepatitis-B was diagnosed in 2019 with hepatocellular carcinoma stage C (T2N1M0). Post-lobectomy with lymph-node clearance, she was started on pembrolizumab and planned for 28 cycles. She presented to casualty department after the fourth cycle of chemotherapy with vomiting, diarrhoea, abdominal discomfort and reduced oral intake. There was no hypotension or hypoglycaemia but she had hyponatraemia (Na:125 mmol/l) with normokalaemia. She was treated with intravenous fluid and discharged after 2 days. However, she presented 5 days later with hypotension, hypoglycaemia and severe hyponatraemia (Na: 117 mmol/l) and hyperkalaemia (K 5.8 mmol/l). She was diagnosed with an adrenal crisis and treated with intravenous hydrocortisone. Further hormonal workout revealed low serum cortisol (15 nmol/l) and undetectable ACTH due to hypophisitis. She made remarkable recovery and parenteral hydrocortisone was tapered and shifted to tablet.

CONCLUSION
High index of suspicion for hypophysitis and hormonal deficiencies in patients treated with pembrolizumab is vital to prevent delay in diagnosis of endocrine emergencies such as adrenal crisis. Furthermore, patients not previously diagnosed should be screened and periodically followed-up to detect hormonal deficiencies from treatment with immune checkpoint inhibitors.

EP_A048

HYPONATREMIA AND TSHoma: THE ODD COUPLE

https://doi.org/10.15605/jafes.038.S2.66

Quan Hziung Lim, Nicholas Ken Yong Hee, Ken Seng Chiew, Marisa Khatijah Borhan, Katherine Khor, Ee Wen Loh, Tharsini Sarvanandan, Sharmila Paramasivam, Lee Ling Lim, Jeyakantha Ratnasingam, Siew Pheng Chan, Shireene Ratna Vethakkan
Endocrinology Unit, Department of Medicine, Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

INTRODUCTION/BACKGROUND
We present a case of syndrome of inappropriate anti-diuresis (SIAD) as a rare presentation of TSH-secreting pituitary macroadenoma.

CASE
A 57-year-old postmenopausal female with no prior medical illness presented with recurrent admissions for symptomatic hyponatremia associated with abdominal pain and vomiting. She denied symptoms of hypothyroidism or hyperthyroidism. There was no history of medication intake. Family history was unremarkable. She was clinically euvolemic, and never exhibited clinical signs of hypo- or hyperthyroidism. There was no goitre.

Serial investigations showed hyponatremia (nadir of 114 mmol/L) and hypoosmolality (nadir of 257 mmol/kg), with elevated urine sodium (90-153 mmol/L) and urine osmolality (360-600 mmol/kg). Copeptin was elevated at 55.7 pmol/L (normal range: <13.1). Further investigations showed a persistently discordant thyroid function test