EP_A079

A RETROSPECTIVE STUDY ON PATIENTS UNDERGOING PARATHYROIDECTOMY FOR PRIMARY HYPERPARATHYROIDISM

https://doi.org/10.15605/jafes.039.S1.090

Liang Wei Wong, Vijayrama Rao Sambamoorthy, Anilah Abdul Rahim, Ijaz Hallaj Rahmatullah
Hospital Raja Permaisuri Bainun, Ipoh, Malaysia

INTRODUCTION/BACKGROUND
Primary hyperparathyroidism (PHPT), characterized by hypercalcemia with elevated or inappropriately normal parathyroid hormone (PTH) level, has an estimated incidence of one to seven per 1000 adults. Parathyroidectomy remains the only definitive treatment and offers cure for this condition.

METHODOLOGY
A retrospective study was done to determine the demographic and clinical severity of patients undergoing parathyroidectomy in Hospital Raja Permaisuri Bainun (HRPB), and its surgical outcomes.

A retrospective study was done for all patients with PHPT who underwent parathyroidectomy in HRPB, from the year 2018-2023. Demographics, laboratory and radiologic investigations including levels of serum PTH, serum adjusted calcium, serum alkaline phosphatase, and post-operative complications were recorded from patients' admission notes and electronic medical records and were analysed using SPSS.

RESULTS
Twenty-five patients with a mean age of 58.8 ± 9.4 years were included in the study, of which, 72% were female. Of the total, 76% had a single parathyroid adenoma, 12% had parathyroid hyperplasia and 12% had parathyroid carcinoma. Pre-operative mean serum calcium was 2.86 ± 0.26 mmol/L, mean serum alkaline phosphatase was 104 ± 87 IU/L, while pre-operative median PTH level was 38.38 pmol/L (interquartile range = 68.63).

Parathyroid lesions were localized by ultrasound of the neck (87.5%) and by parathyroid scintigraphy (88.9%). Complications included osteoporosis (57.1%) and nephrolithiasis (52.6%). Sixty percent received calcium supplementation during the immediate postoperative period. Two patients developed post-operative hypocalcaemia, two had neck hematoma and one was complicated with recurrent laryngeal nerve palsy.

CONCLUSION
Half of our patients were diagnosed with PHPT-related complications prior to surgery, suggesting a need for better screening strategies. Parathyroidectomy offers high cure rates for primary hyperparathyroidism in the hands of experienced surgeons and should be recommended to patients meeting the criteria for surgery.

EP_A080

HYPOPARATHYROIDISM IN PREGNANCY AND LACTATION: BALANCING CALCIUM SWINGS

https://doi.org/10.15605/jafes.039.S1.091

Mohd Hazriq A, Aimi Fadilah M, Nur Aini EW, Aisyah Z, Fatimah Zaherah MS, Rohana AG
Fakulti Perubatan, Universiti Teknologi MARA (UiTM), Sungai Buloh, Malaysia

INTRODUCTION/BACKGROUND
Management of hypoparathyroidism includes calcium and activated vitamin D supplementation. The dose often requires adjustment during pregnancy and lactation. The combination of increased calcium requirements and the dynamics of parathyroid hormone-related protein (PTHrP) secretion from placental and breast tissue may shift calcium balance to a variable extent.

CASE
A 32-year-old female with a history of hypoparathyroidism after undergoing total thyroidectomy for micropapillary thyroid cancer was followed up during her pregnancy. Her baseline treatment was calcitriol 1.0 mcg and calcium carbonate 1000 mg twice daily. There was a significant drop in serum calcium levels during early pregnancy that required admissions for correction of symptomatic hypocalcaemia. Her calcitriol dose tripled in the first trimester before being slowly reduced back to baseline in the mid-second trimester and stabilizing afterward. She had an uneventful delivery at 37 weeks and gave birth to a healthy newborn. She stopped taking calcitriol postpartum while fully breastfeeding for 4 months and was completely asymptomatic during that period with a documented calcium level of 2.14 mmol/L. However, within 2 weeks of cessation of breastfeeding, she presented with symptoms of hypocalcaemia and a corrected calcium level of 1.87 mmol/L. Treatment with calcitriol was hence reinstated.

CONCLUSION
PTHrP production by the placenta and lactating breast results in increased endogenous calcitriol levels. This subsequently enhances intestinal calcium absorption to meet heightened physiological calcium demands. However,

the balance between these two opposing physiologies varies between individuals. This is a rare case documenting a dramatic decline in the need for calcitriol in a patient with hypoparathyroidism during the postpartum and lactation period, followed by a sudden resurgence in calcitriol requirement occurring immediately upon cessation of breastfeeding.

EP_A081

DIFFERENT FACADES OF PTH-DEPENDENT HYPERCALCEMIA IN PREGNANCY

https://doi.org/10.15605/jafes.039.S1.092

Qin Zhi Lee,[1] Hwee Ching Tee,[1] Ling Yen Hii[2]
[1]*Hospital Queen Elizabeth II, Kota Kinabalu, Sabah, Malaysia*
[2]*Hospital Wanita dan Kanak-Kanak Sabah, Malaysia*

INTRODUCTION/BACKGROUND
Hypercalcemia is a rare occurrence during pregnancy. This can present variably and pose unique challenges in management. The general diagnostic approach is similar to the non-pregnant population however, additional considerations must be taken regarding the modality of investigations and safe treatment options during pregnancy. We present 3 pregnant patients who had PTH-dependent hypercalcemia. We explore their clinical presentation, diagnostic evaluation, management, and outcomes. Through this case series, we aim to highlight different aspects of management for hypercalcemia during pregnancy.

CASE 1
A 32-year-old patient at 33 weeks period of gestation (POG) presented with acute pancreatitis and was found to have hypercalcemia 2.99 mmol/L and raised iPTH 16.64 pmol/L (reference range 1.59 - 7.24). Calcium levels showed a decreasing trend with hydration alone and the patient had an uneventful delivery at term. Postpartum calcium: creatinine clearance ratio (CCCR) of 0.02 confirmed primary hyperparathyroidism. Further evaluation was planned, however she defaulted on follow-up.

CASE 2
A 37-year-old patient at 15 weeks POG presented with renal impairment due to nephrolithiasis, with severe hypercalcemia 3.9 mmol/L and elevated iPTH 162.4 pmol/L. Ultrasonography of the neck showed a left lower pole parathyroid lesion measuring 1.9 x 2.3 x 2.4 cm. Hypercalcemia was refractory to hydration and required calcitonin, cinacalcet and pamidronate. Left-focused parathyroidectomy was performed at 17 weeks POG. Calcium levels normalized postoperatively. Histopathological examination confirmed parathyroid adenoma. Unfortunately, the patient opted for termination of pregnancy due to worsening renal function.

CASE 3
A 31-year-old patient was diagnosed with Familial Hypocalciuric Hypercalcemia (FHH), evidenced by mild hypercalcemia 2.8 mmol/L, elevated iPTH 8.2 pmol/L, CCCR <0.01, and normal Vitamin D levels. There was worsening hypercalcemia at 2.98 mmol/L during pregnancy which improved with hydration. The pregnancy then continued uneventfully.

CONCLUSION
Hypercalcemia is rare in pregnancy, but its treatment necessitates a delicate balancing act to ensure the safety of both mother and offspring. Treatment must be given in a timely manner, and reassurance has to be provided to patients with benign conditions such as FHH.

EP_A082

POSTMENOPAUSAL VITAMIN D SCREENING AND INITIATION OF TREATMENT

https://doi.org/10.15605/jafes.039.S1.093

Lavanya Jeevaraj and Nurain Mohd Noor
Hospital Putrajaya, Malaysia

INTRODUCTION/BACKGROUND
Menopause induces bone density loss due to oestrogen deficiency, predisposing women to osteoporosis and fractures. It is estimated that of the 200 million women affected globally, 50% are post-menopausal. Vitamin D deficiency further compounds bone healing. Recent meta-analyses show that over half the Malaysian population has inadequate levels of Vitamin D, underscoring the need for proactive measures in women's health screening. Initiating anti-resorptive medication during the early post-fracture period has in the past raised concerns about fracture healing, however, recent studies do not reflect this. The preponderance of available data suggests that anti-resorptives are safe to be initiated as early as 1-2 weeks post-fracture.

METHODOLOGY
We examined the awareness of screening for Vitamin D deficiency and the time to initiation of treatment within this demographic.

This is a retrospective study among women with postmenopausal osteoporotic fractures seen from the years 2022 to 2023 in Hospital Putrajaya, looking into screening for Vitamin D deficiency and the timing of initiation of definitive osteoporotic treatment.