

EP_A102**MANAGING A YOUNG MALE WITH PRIMARY HYPERPARATHYROIDISM PRESENTING WITH SEVERE HYPERCALCAEMIA IN A DISTRICT HOSPITAL: A CASE REPORT**

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INTRODUCTION/BACKGROUND

Primary hyperparathyroidism (PHPT) is characterized by hypercalcemia with an inappropriately elevated intact parathyroid hormone level (iPTH). Clinical presentation may range from asymptomatic to severe symptomatic hypercalcemia with complications such as osteoporosis, fracture and renal stones.

CASE

A 31-year-old male was admitted following a motor vehicular accident where he sustained a fracture over the midshaft of the left ulnar and radial bones. On further history, he had experienced right hip and bilateral knee pain in the past 3 months prior to the accident. During this admission, his serum calcium was elevated at 4 mmol/L with a low phosphate level at 0.65 mmol/L. His PTH level was markedly elevated (858 pg/ml). Renal profile, vitamin D level and liver function test were normal. X-ray of bilateral knee joint and hip was suggestive of generalized osteopenia. He required several admissions for severe refractory hypercalcemia managed with bisphosphonate and hyperhydration. Ultrasound of the parathyroid revealed a homogenous hypoechoic lesion at the right posterior thyroid lobe measuring 0.9 x 2.1 x 2.8 cm. Preoperatively, he was given hyperhydration along with furosemide and cinacalcet to achieve a target calcium level of 3 mmol/L. He successfully underwent a right inferior parathyroidectomy. Histopathological examination revealed a right parathyroid adenoma. Post-operatively, the patient required calcium infusion and was able to be discharged with a calcium supplement and active vitamin D.

Solitary parathyroid adenoma accounts for the majority of primary hyperparathyroidism followed by multiple gland hyperplasia and less commonly, parathyroid carcinoma. The definitive treatment is parathyroidectomy.

Our patient fulfilled the criteria for surgery and successfully underwent total parathyroidectomy at our district hospital by a visiting endocrine surgeon. Intra-operative PTH

monitoring was not done as it was not available at our centre. Genetic testing should be considered in this case because PHPT was diagnosed below the age of 40.

CONCLUSION

Primary hyperparathyroidism presenting with severe refractory hypercalcemia warrants immediate treatment in order to prevent complications from hypercalcemia. In addition to hyperhydration and bisphosphonate, cinacalcet is another option to reduce calcium levels in PHPT.

EP_A103**RARE PRESENTATION OF OSTEOPOROSIS IN PREGNANCY: A CASE REPORT AND LITERATURE REVIEW**

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INTRODUCTION/BACKGROUND

Osteoporosis in pregnancy is a rare condition, with a reported occurrence of only 1.2% among individuals aged 20 to 40 years. Despite its infrequency, the condition carries significant potential for disability and adverse outcomes.

CASE

We present a 29-year-old female at 33 weeks of gestation, with a background history of type 2 diabetes mellitus with retinopathy. She, came in with a 5-week history of right hip pain. Subsequently, she fell from a standing position rendering her immobilized. A pelvic x-ray was performed, revealing a right femoral neck fracture. The patient had no history of steroid use. Initial investigations including thyroid function test, calcium and phosphate levels were within normal limits. However, serum parathyroid hormone was low at 0.95 pmol/L (normal range: 1.59-7.24) and vitamin D was low at 35 nmol/L (sufficiency >75).

Following a Caesarean section, she underwent screw fixation of the neck of the right femur and was advised to refrain from weight-bearing on the affected limb for 3 weeks. Histopathological examination of the bone fragment revealed scanty bony trabeculae without atypical cells. A dual X-ray absorptiometry (DXA) scan revealed a normal bone mineral density (BMD) of the spine with Z-score of 0.1. The total left hip BMD was 0.673 g/cm³ with a Z-score of -1.7 and T score of -2.0.

The fracture was attributed to a combination of factors, including vitamin D deficiency, hormonal changes during pregnancy and diabetes. The patient was started on calcium