

We described a case of PHPT secondary to a parathyroid adenoma presenting with typical pregnancy symptoms. A high index of suspicion warrants screening for serum calcium levels in hyperemesis gravidarum if symptoms persist beyond the first trimester or are severe, and if symptoms suggestive of hypercalcemia are present. Early detection is crucial for the timely management and improvement of maternal and foetal outcomes. Maternal complications can be as high as 67% including nephrolithiasis, pancreatitis, hyperemesis gravidarum, muscle weakness, confusion, hypercalcaemic crisis, and can also lead to miscarriages and pre-eclampsia.

CONCLUSION

Recognizing primary hyperparathyroidism can be challenging as symptoms may overlap with typical pregnancy. Surgery is the sole curative measure for primary hyperparathyroidism, well-tolerated during pregnancy with minimal adverse effects.

EP_A099

THE MISSING PIECE OF ADULT HYPOPHOSPHATEMIC RICKETS PUZZLE: A CASE REPORT OF SUSPECTED X-LINKED HYPOPHOSPHATEMIA (XLH) WITH RECURRENT DENTAL ABSCESS

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INTRODUCTION/BACKGROUND

X-linked Hypophosphatemia (XLH) is associated with primary musculoskeletal complications and can present with recurrent dental-related complications.

CASE

We present a case of poorly treated XLH who not only presented with typical bone deformities but also with overlooked dental complications. A 24-year-old female presented to us with short stature, severe bowing of the legs with leg pain, frontal bossing, and bilateral genu varus with recurrent dental-related problems requiring multiple visits to the dentist, causing distress as she is losing her teeth. She had undergone an osteotomy four times on her left femur. Family history was insignificant. Assessment by the dentist reveals multiple cyst and abscess formations at both the upper and lower jaws and malocclusion.

She has normal calcium (2.18 mmol/L), low phosphate (0.47 mmol/L) with low Renal-Tubular-Reabsorption-of-Phosphate (TMP/GFR) [0.67 mmol/L] and vitamin

D deficiency (35 nmol/L). No evidence of other renal electrolytes or acid-base loss was noted. Her intact PTH and ALP were normal. Serum calcium, phosphate, and vitamin D levels improved with Sandoz phosphate 500 mg given twice daily, alphacalcidol 1 mg once daily, and calcium carbonate 500 mg twice daily. Her latest serum calcium was 2.39 mmol/L, serum phosphate increased to 0.71 mmol/L, vitamin D level likewise improved to 88.9 nmol/L, and iPTH was normal 27.7 pg/ml (14.9–56.9). Ultrasound of the kidneys did not show any medullary nephrocalcinosis. No confirmatory genetic tests to look at PHEX mutation gene were done due to financial constraints.

CONCLUSION

Adult XLH can present with only dental-related issues and are often overlooked. It can lead to premature tooth loss, resulting in adverse practical, cosmetic, and social sequelae. Hence, dental-related complaints should always be addressed and treated. Studies have shown that dental issues are milder among people who underwent conventional therapy compared to those who did not receive continuous treatment. Supplementation with phosphorus and a vitamin D analogue enhances the mineralization of dentin and decreases the frequency of dental abscesses.

EP_A100

FAILED LOCALIZATION IN PRIMARY HYPERPARATHYROIDISM DUE TO POLYGLANDULAR DISEASE

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INTRODUCTION/BACKGROUND

Primary hyperparathyroidism (PHPT) is characterized by hypercalcemia driven by excess secretion of parathyroid hormone (PTH). While solitary hyperfunctioning parathyroid adenomas account for up to 90% of cases, localizing hyperfunctioning glands in multiglandular disease (MGD) is more challenging.

CASE

A 46-year-old female presented with chronic vomiting and significant weight loss, leading to a diagnosis of primary hyperparathyroidism with secondary osteoporosis and severe vitamin D deficiency. She had five admissions over 10 months for severe hypercalcemia, (3.6- 4.4 mmol/L) requiring intravenous bisphosphonates.

She underwent multiple imaging studies for parathyroid adenoma localization, including parathyroid ultrasound and subsequent sestamibi scan, which showed no evidence of hyperfunctioning parathyroid tissue. A computed tomography scan using a parathyroid protocol did not demonstrate any parathyroid adenoma. After multiple hypercalcaemic crises requiring IV bisphosphonates, oral cinacalcet 50 mg twice daily was initiated to control her hypercalcaemia. However, her calcium levels remained elevated, leading to the decision to do bilateral neck exploration (BNE) due to failed multimodal localization studies. Calcitonin (total dosing of 300 units) was administered preoperatively to optimize calcium levels. Intraoperatively, the right superior and left inferior parathyroid glands were removed, preserving only the right inferior parathyroid gland. The left superior parathyroid gland was not visualized. Intraoperative iPTH was not available in our setting. Histopathological examination revealed a right superior parathyroid adenoma and left inferior gland hyperplasia. Postoperatively, she transiently required calcium infusion and was discharged with oral calcium and vitamin D supplementation. Preoperatively, serum intact PTH was 167 pg/mL (NR 14.9-56.9), which decreased to 16.8 pg/mL one month postoperatively, indicating successful removal of the target adenoma.

CONCLUSION

In cases of failed localization in PHPT, recognizing MGD is crucial. BNE may yield higher cure rates compared to minimally invasive parathyroidectomy, which require two concordant imaging studies. Preoperative calcium optimization is essential for minimizing intraoperative complications and the risk of postoperative hungry bone syndrome.

EP_A101

CLINICAL AUDIT ON BONE MINERAL DENSITY (BMD) CONDUCTED IN SERDANG HOSPITAL IN THE YEAR 2023

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INTRODUCTION/BACKGROUND

BMD measurement using dual-energy x-ray absorptiometry (DXA) remains the gold standard for the diagnosis of osteoporosis. This non-invasive, radiographic test is a

convenient tool that guides physicians when to initiate osteoporotic therapy, especially among the elderly population without fragility fracture.

METHODOLOGY

We conducted a cross-sectional audit on all the BMDs conducted in the year 2023 at HSIS, to study the bio-demographics of the patients, severity of BMDs and adequacy of treatment initiated. In this clinical audit, all BMDs were extracted from the electronic medical record (EMR). Medications and bio-demographics of the patients were extracted from the EMR to calculate the FRAX score.

RESULTS

A total of 473 BMD reports were interpreted. The mean age of the patients was 65.5 (13.4) years while the mean BMI was 25.3 (5.4) kg/m². About 89% of patients were female and 11% were male. According to ethnicity, the majority were Chinese (47.4%), followed by Malay (34.7%) and Indian (17.3%). A total of 168 (35.5%) patients who had BMD had a fragility fracture but only 76.2% were treated with anti-osteoporotic agents. Majority of the requests for BMD were from the Orthopaedics Department (57.7%) followed by Rheumatology Unit (23.5%) and Endocrinology Unit (3.6%). About 64.1% (n=303) of patients qualify for anti-osteoporotic treatment due to a fragility fracture, a T score ≤ -2.5 or osteopenia with FRAX score warranting treatment. However, only 198 (65.3%) were started on anti-osteoporotic treatment. In 165 patients with severe osteoporosis (T score ≤ -3.0), only 127 (77%) were started on treatment, and only 2 of them (1.2%) were started on anabolic agents.

CONCLUSION

Lack of screening, awareness and inadequate funding for anti-osteoporotic treatment were the main contributing factors for delay in treatment or initiation of less potent agents among patients with osteoporosis.