

Adult E-Poster

production and recurrent hypoglycemia render it a potentially lethal condition.

CASE

A 41-year-old male with comorbid hypertension and dyslipidaemia presented with right upper quadrant pain for two days, altered bowel habits, decreased appetite, and weight loss. He underwent assessment to rule out malignancy. During hospitalisation, he developed recurrent asymptomatic hypoglycaemia despite the administration of dextrose infusion. He was confirmed to have endogenous hyperinsulinism, evidenced by increased blood C-peptide levels of 689 pmol/L during a hypoglycaemic episode with plasma glucose 3.0 mmol/L. CECT of the abdomen and pelvis demonstrated rim-enhancing hypodense lesions in the liver, with the largest lesion measuring 8.1 x 7.5 x 8.8 cm (AP x W x CC). There was also a hypodense lesion in the body of pancreas (0.7 x 0.8 cm). The liver biopsy revealed poorly differentiated neuroendocrine carcinoma. He was co-managed by the surgical and oncology teams. The lesion was unresectable, and he was also not a suitable candidate for arterial embolisation. He was prescribed diazoxide tablets to alleviate hypoglycaemia. Despite the regular intake of diazoxide, his hypoglycaemia worsened, finally resulting in his death.

CONCLUSION

Insulinoma is a neoplasm with a 10% likelihood of malignancy. Individuals with insulinoma often present with Whipple's triad, characterised by hypoglycaemia symptoms, plasma glucose concentrations below 3.1 mmol/L, and symptom relief after ingestion of a high-glucose meal. Insulinoma is best treated with surgical excision. The main and challenging management issue in insulinoma is addressing recurrent hypoglycaemia in patients with unresectable tumours. Octreotide, a somatostatin analogue, is often used to reduce insulin production. Diazoxide, on the other hand, inhibits insulin secretion and stimulates glycogenolysis to enhance glucose release from the liver. In the end, a patient with malignant insulinoma may die from severe hypoglycaemia or metastatic malignancy.

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ATYPICAL PARATHYROID TUMOR: CHALLENGES OF DIAGNOSIS AND MANAGEMENT

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INTRODUCTION/BACKGROUND

Differentiating between benign and malignant parathyroid nodules is a clinical and pathological challenge. Unlike other tumours, parathyroid carcinoma lacks definitive preoperative biomarkers. The diagnosis is frequently made retrospectively based on surgical pathology.

CASE

A 55-year-old female came to our hospital with progressive bilateral weakness of lower extremities 6 months ago, resulting in partial immobilization, bone pain, and contracture of lower extremity. Laboratory results showed high serum calcium (13.9 mg/dL) and intact PTH (2,729 pg/mL). Neck ultrasound revealed a left parathyroid nodule mass. The MIBI scan showed a negative result. Bone X-ray of vertebra and extremities showed multiple lytic lesions and osteopenia. She was treated with zoledronic acid and scheduled for subtotal parathyroidectomy. After parathyroid resection, iPTH levels decreased significantly. However, she had low calcium levels, indicating hungry bone syndrome, and we managed with oral and IV calcium to restore normal calcium levels. The histopathology of parathyroid nodules showed neoplasms of parathyroid origin that show atypical histologic features but without unequivocal capsular, vascular, or perineural invasion. During hospitalizations, she had a pathological closed fracture of the right tibia. The orthopedic surgeon placed an internal fixation in the right tibiae and did a bone biopsy, no malignant cells from bone histopathology. We diagnosed her as atypical parathyroid tumor (APT) with metabolic bone disease and gave her IV Denosumab. After routine physiotherapy, she could mobilize around the bed and was discharged eventually with normal calcium levels. We planned for serum calcium and PTH evaluation 3-6 months after surgery.

CONCLUSION

APT is a distinct and enigmatic entity between benign adenoma and malignant carcinoma of parathyroid tumour. These tumours exhibit some worrisome histologic features of malignancy but lack definitive evidence of parathyroid carcinoma. APT is usually indolent. The prognosis is

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generally favourable if the tumour is completely resected and closely monitored.

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HIGH PREVALENCE OF PREDIABETES AND VITAMIN D DEFICIENCY IN IBB GOVERNORATE, YEMEN: A CROSS-SECTIONAL STUDY

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INTRODUCTION

Prediabetes and vitamin D deficiency are growing health concerns linked to diabetes progression and its complications, yet their prevalence and association remain underexplored, specifically in Yemen. This study aims to assess the prevalence of prediabetes and vitamin D deficiency among individuals in the Ibb Governorate, Republic of Yemen.

METHODOLOGY

A cross-sectional study involving 1046 participants who met study criteria recruited from various centres in the Ibb Governorate, Yemen, including Jiblah University for Medical and Health Sciences, Medical City Complex, and Al-Noor Hospital. They underwent HbA1c and level of vitamin D determination. Prediabetes was defined based on the American Diabetes Association, using HbA1c between 5.7% and 6.4%. Vitamin D levels of <20 ng/mL and 20-30 ng/mL are defined as deficiency and insufficiency, respectively.

RESULT

The prevalence of prediabetes was 25.7% (269). The mean HbA1c and age were 5.9 + 0.2 % and 41.4 + 10.2 years, respectively. From the prediabetes population, 71.4% (189) had vitamin D deficiency, while 20.7% (54) had vitamin D insufficiency, with a total of 93.1% (243) of prediabetes participants. The mean age for deficiency, insufficiency and sufficiency is 40.80 ± 9.9 ng/mL, 41.3 ± 10.0 ng/mL and 47.8 ± 9.0 ng/mL, respectively. The prevalence of low vitamin D levels (vitamin D deficiency and insufficiency) was slightly higher in males (126, 48.27%) compared to females (117, 44.83%). A significant age difference was observed for the sufficient group compared to both deficiency ($p = 0.01$) and insufficiency ($p = 0.04$) groups. The Chi-square test revealed a significant association between gender and the vitamin D status groups ($\chi^2 = 8.266, p = 0.01$).

CONCLUSION

The significant prevalence of prediabetes and vitamin D deficiency in the Ibb Governorate underscores the need for comprehensive interventions addressing both conditions. Correcting vitamin D deficiency may reduce the progression from prediabetes to diabetes, potentially improving metabolic health outcomes and mitigating associated complications.

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INSULIN INITIATION IN T2DM: OUTCOMES ON GLYCAEMIC CONTROL, BODY WEIGHT, AND HYPOGLYCEMIA RISK

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INTRODUCTION

The prevalence of diabetes in Malaysia is rising due to urbanization and socioeconomic changes. Despite evidence supporting good glycaemic control, maintaining optimal control remains challenging, with mean HbA1c levels ranging from 7.9% to 8.1%. Progressive beta-cell failure leads to secondary OAD failure, necessitating insulin therapy. This study evaluates the effect of a simple insulin therapy protocol on glycaemic control in T2DM patients with secondary OAD failure.

METHODOLOGY

A prospective study was conducted in outpatient clinics at Hospital Kuala Lumpur and Hospital Serdang. Patients with T2DM and secondary OAD failure (HbA1c >9%, fasting plasma glucose ≥9 mmol/L) were recruited. The intervention