

## PP-B-14

### THE PREVALENCE OF VITAMIN D DEFICIENCY IN PATIENTS WITH NON-ALCOHOLIC FATTY LIVER DISEASE AND T2DM

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#### INTRODUCTION

Vitamin D has been shown to have anti-inflammatory effects and its deficiency is associated with increased risk of type 2 diabetes mellitus (T2DM), and non-alcoholic fatty liver disease (NAFLD). Vitamin D deficiency is prevalent in patients with T2DM and NAFLD.

#### METHODOLOGY

This study aimed to determine the prevalence of vitamin D deficiency in patients with both T2DM and NAFLD. We conducted a cross-sectional study in adult patients with T2DM, and they were divided into 2 groups: patients with T2DM and NAFLD (n=86) and patients with T2DM without NAFLD (n=24). The definition of NAFLD was based on the presence of liver steatosis via ultrasound abdomen. Serum total 25-hydroxy-D3 (vitamin D) level was analysed using electrochemiluminescence immunoassay and defined as deficient if the level was <50 nmol/L. The sample size calculated was 47 patients per group.

#### RESULTS

The prevalence of vitamin deficiency in the overall population was 48.2% (53/110). There was a numerically higher prevalence of vitamin D deficiency in patients with T2DM and NAFLD compared to those without NAFLD (52.3% (45/86) vs 33.3% (8/24), p=0.1). The mean serum vitamin D levels of patients with T2DM and NAFLD were statistically lower than those without NAFLD (51.53 ± 19.68 vs 60.61 ± 20.25; p <0.05). These differences were seen despite no significant difference in age, diabetes duration, insulin dose, BMI, weight circumference, HbA1c, LDL-c, HDL-c, triglycerides, and interleukin-6 levels between the NAFLD and no NAFLD group.

#### CONCLUSION

This study demonstrated a high prevalence of vitamin D deficiency in patients with T2DM and NAFLD. Patients with T2DM and NAFLD have lower vitamin D level as compared to those with T2DM alone.

#### KEYWORDS

vitamin D deficiency, type 2 diabetes mellitus, non-alcoholic fatty liver disease, insulin, ultrasound

## PP-B-15

### CASE SERIES OF PRIMARY HYPERPARATHYROIDISM: FROM ASYMPTOMATIC TO FATAL COMPLICATION

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#### CASE

Primary hyperparathyroidism is a disorder of the parathyroid glands that causes excessive secretion of parathyroid hormones. The presentation spectrum of PHPT is wide, from asymptomatic to symptomatic. We present four cases of primary hyperparathyroidism (Case 1: 45-year-old female, Case 2: 18-year-old male, Case 3: 36-year-old female, and Case 4: 27-year-old male. All patients were Indonesian), with asymptomatic presentation only in Case 1, the rests were symptomatic. Parathyroidectomy was performed in all patients, with the histopathological results of parathyroid adenoma (Cases 1 and 2) and parathyroid carcinoma (Cases 3 and 4). There were hungry bone syndrome complications in both parathyroid carcinoma patients, and one of the patients did not survive due to cardiac arrhythmia. We compare the differences of clinical presentation, biochemical findings, imaging, and the outcomes of all patients, to learn how to treat primary hyperparathyroidism with different presentations.

#### KEYWORDS

primary hyperparathyroidism, parathyroid adenoma, parathyroid carcinoma, hungry bone syndrome

## PP-B-16

### UNDERDIAGNOSED CLASSICAL PRIMARY HYPERPARATHYROIDISM AND RAPID PROGRESSIVE DEMENTIA: CASE REPORT AND LITERATURE REVIEW

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#### CASE

A 76-year-old female presented with forgetfulness and disorganized behavior 3 months prior to admission. She had hypertension and also had postmenopausal osteoporosis which was treated with oral alendronate plus vitamin D for 7 months. After complete metabolic panels, laboratory results revealed unexpected serum calcium