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Prevalence of Metabolically Healthy Obese (MHO) Individuals: A Weight Management Clinic Experience

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INTRODUCTION

Obesity remains a major health issue in Malaysia which is associated with metabolic syndrome. As per International Diabetes Federation (IDF) criteria, metabolic syndrome is defined as presence of central obesity; plus any 2 metabolic abnormalities such as raised systolic (>130 mmHg) and diastolic (>85 mmHg) blood pressure, raised fasting plasma glucose (FPG) (≥5.6 mmol/L), raised triglyceride (TG) level (≥1.7 mmol/L) and reduced high density lipoprotein (HDL) levels (<1.03 mmol/L in men and <1.29 mmol/L in women). However, there exists a population of obese individuals which do not fulfil the metabolic syndrome criteria. This is referred to as metabolically healthy obese (MHO) population.

METHODOLOGY

We performed a retrospective analysis of patients who were attending the University Teknologi MARA (UiTM) Weight Management Clinic. We studied patient records and assessed the prevalence of metabolic derangements indicative of metabolic syndrome in our obese population using the IDF criteria.

RESULTS

A total of 92 patients attended the clinic with a median body mass index (BMI) of 43.2±9.6 kg/m². Normal TG level was seen in 79.5% of patients. 56.9% of men and 51.2% of women had appropriate HDL levels. FPG levels remained normal in 46.4% of patients. Thirty eight percent had SBP less than 130 mmHg while 75% had DBP less than 85 mmHg. In our cohort, 30 out of 92 patients (32.6%) had normal metabolic profile consistent with MHO individuals.

CONCLUSION

Prevalence of MHO individuals attending our weight management clinic is 32.6% and consistent with the reported prevalence in other populations. This falsely reassuring normal metabolic profile should be acted upon as MHO individuals have an increased risk of developing diabetes mellitus and cardiovascular disease. They should receive proper screening and advice on lifestyle modifications as preventive measures.

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The Predictive Value of the Burch-Wartofsky Point Scale (BWPS) in Clinically Diagnosing Thyroid Storm

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INTRODUCTION

Thyroid Storm (TS) is a life-threatening manifestation of thyrotoxicosis. The current method for diagnostic classification includes using the Burch-Wartofsky Point Scale (BWPS). A BWPS score of 45 or more is highly suggestive of TS, between 25 to 44 indicative of impending TS, and less than 25 unlikely TS. Our objectives were to evaluate the predictive value of BWPS in a group of patients clinically diagnosed as TS, impending TS or compensated thyrotoxicosis (CT).

METHODOLOGY

This was a retrospective study of adult hospitalized patients in Hospital Tengku Ampuan Afzan (HTAA) during a one-year period (March 2018 to March 2019), clinically diagnosed as TS.

RESULTS

Of 20 thyrotoxic patients, 4 were clinically diagnosed as TS, 5 as impending TS and the remaining 11 as thyrotoxicosis. Among the 4 clinically treated as TS, 3 were later biochemically proven as TS, with BWPS score of 60, 85 and 65, respectively. The remaining patient had a BWPS score of 50 but thyroid function test (TFT) results later confirmed otherwise. The 5 patients diagnosed as impending TS were all later confirmed as compensated thyrotoxicosis (CT). All 11 patients diagnosed as thyrotoxicosis did not have biochemical evidence of TS in their TFT results. Among the components of BWPS, the rates for fever, tachycardia and altered mentation contributed the highest scores for clinically diagnosing TS. Using the BWPS, the positive predictive value (PPV) and negative predictive value (NPV) of diagnosing TS was 75% and 100%, respectively.

CONCLUSION

The BWPS is a good diagnostic and predictive tool for clinically evaluating TS, thus allowing administration of prompt treatment.