Practice Guidelines for the Management of T2DM, 2020): non-diabetes, pre-diabetes, and diabetes.

RESULT
The mean age of the participants was 37.8 ± 8.1 years, with a majority being female (69.3%) and Malay (65.3%). The median BMI and WC were 38.1 (16.6) kg/m² and 123.5 (25.3) cm, respectively. The non-diabetes group exhibited significantly lower median values for weight, BMI, WC, triglycerides, alanine aminotransferase, and aspartate aminotransferase, and higher median values for HDL-C, compared to both the pre-diabetes and diabetes groups (p-value for all comparisons <0.01). Despite these differences, most variables, particularly lipid profiles, were elevated across all study groups and a gradual increase was observed from the non-diabetes to the diabetes group.

CONCLUSION
The baseline characteristics of the participants revealed elevated cardiovascular risk despite the absence of diabetes. The differences between study groups in selected variables at baseline will be considered when analysing the study's future results. Follow-up data collection for 6- and 12-month post-surgery is ongoing.

EP_A028

BASELINE BODY COMPOSITION OF OBESE INDIVIDUALS ACCORDING TO DIABETES STATUS IN MALAYSIA

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INTRODUCTION
Measurement of human body composition plays an important role in characterizing health status, as well monitoring treatment or intervention outcomes especially in individuals with obesity. In Malaysia, however, there is insufficient evidence of body composition among obesity with and without diabetes. This study aimed to describe the baseline body composition of obese individuals according to their diabetes status.

METHODOLOGY
This is the baseline data of a multicentre intervention study involving obese patients undergoing metabolic surgery in Malaysia. Patients were recruited from obesity clinics and weight management centres. Patients with a body mass index (BMI) ≥25 kg/m² were categorized into 3 groups: non-diabetes, prediabetes, and diabetes. Body composition components including skeletal muscle mass (SMM), body fat mass (BFM), percentage body fat (PBF) and visceral fat area (VFA) were measured using a bioimpedance analyzer (Inbody S10). Statistical analysis was done using SPSS version 28.

RESULT
A total of 75 patients were included in this baseline recruitment. Most participants were female (n=69.3%), with an overall mean age of 37.8 (± 8.1) years. In view of major ethnicity distribution, majority of the patients are Malay (65.3%), followed by Chinese (10.7%) and Indian (10.7%). The median BMI was 38.1 kg/m² (IQR: 32.7–49.3 kg/m²). There is a significant difference in SMM, BFM, PBF and VFA between patients without diabetes and prediabetes ($p<0.05$). Similarly, there was a significant difference in parameters above between patients without diabetes, and those with diabetes ($p<0.05$). However, no significant difference was observed between prediabetes and diabetes group.

CASE
Our baseline data showed there was a significant difference in body composition between obese patients with diabetes and obese patients without diabetes. It is important to investigate how metabolic surgery may influence the changes in body composition according to the diabetes risk among obese patients.

EP_A029

THE PREVALENCE OF THYROID DISORDERS AMONG OVERWEIGHT AND OBESE PATIENTS IN A SINGLE-CENTRE

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INTRODUCTION
Hypothyroidism can cause weight gain. While the prevalence of hypothyroidism among Malaysians is 2.1% (0.5% overt and 1.6% subclinical hypothyroidism), its prevalence among those who are overweight and obese is still unknown.

METHODOLOGY

This is a cross-sectional cohort study among participants of the Weight Loss Journey Program in Hospital Sultan Abdul Aziz Shah, University Putra Malaysia in March 2023. Overweight is defined as BMI ≥23.0 kg/m² and obese is defined as BMI ≥27.5 kg/m². Participants who agreed to do baseline blood exams were investigated for thyroid abnormalities.

RESULT

There were 151 participants in the weight loss challenge. The a mean age was 33 years old and majority were female (n = 124). The mean weight 80.9 kg (51.1-158.1 kg) with mean BMI of 31.6 kg/m² (23.0 – 57.5 kg/m²). A total of 72 participants consented to blood exam for serum thyroid stimulating hormone (TSH) and free thyroxine (T4) levels. The mean TSH was 1.39 uIU/mL (0.2- 3.49 uIU/mL), while the mean fT4 was 13.04 pmol/L (10.6-17.1 pmol/L). There were no participants with subclinical nor overt hypothyroidism. Paradoxically, there was a patient who had subclinical hyperthyroidism with TSH and T4 values of 0.2 uIU/mL and 15.5 pmol/L, respectively.

CONCLUSION

Subclinical or overt hypothyroidism did not seem to be an important cause of obesity locally. Hence, we recommend that thyroid function test only be required for those who have additional clinical features of thyroid disorder.

EP_A030

THE PREVALENCE OF PRE-DIABETES AND DIABETES AMONG OVERWEIGHT AND OBESE PATIENTS IN A SINGLE-CENTRE

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INTRODUCTION

Overweight and obesity increase the risk of diabetes mellitus, and 84% of Malaysians with Type 2 Diabetes Mellitus (T2DM) are obese. While the local prevalence of prediabetes and diabetes are 11.62% and 18.3% respectively, there is paucity of data on its prevalence among those who are overweight and obese.

METHODOLOGY

This is a cross-sectional cohort study among participants of the Weight Loss Journey Program in Hospital Sultan Abdul Aziz Shah, University Putra Malaysia in March 2023. Overweight is defined as BMI ≥23.0 kg/m² and obese

is defined as BMI ≥27.5 kg/m². Participants who agreed to do baseline blood exams were investigated for prediabetes and diabetes by measuring their baseline fasting blood glucose (FBS) and HbA1c.

RESULT

There were 151 participants in the weight loss challenge. The mean age was 33 years old and majority were female (n=124). Mean weight was 80.9 kg (51.1 – 158.1 kg) with mean BMI of 31.6 kg/m² (23.0- 57.5 kg/m²). Six patients were excluded as they were known to have DM. A total of 68 participants agreed to undergo screening for diabetes by measuring FBS and HbA1c. The mean FBS and HbA1c were 4.66 mmol/L (3.8- 5.9 mmol/L) and 5.5% (4.5-6.5%), respectively. Interestingly, 39.7% (27 out of 68 subjects) had prediabetes, and only 6% (4 out of 68 subjects) met the criteria for diabetes.

CONCLUSION

Higher than normal BMI appear to pose a 3.3-fold increased risk of prediabetes compared to the general population. This is worrying given their relatively young age and only moderately high BMI levels. Nevertheless, the noted small proportion of undiagnosed DM in this patient population may reflect recent improvements in screening and detection of DM.

EP_A031

LOCAL EXPERIENCE OF TOLVAPTAN IN THE MANAGEMENT OF INPATIENTS WITH SIADH

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INTRODUCTION

Hyponatraemia with sodium (Na) levels of less than 135 mmol/L is the most common electrolyte imbalance in clinical practice. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) is a frequent cause of hyponatraemia, especially in patients with malignancy and can result in prolonged hospitalisation. Tolvaptan, an ADH-receptor antagonist, is a useful option to treat hyponatraemia in patients with SIADH and reduce inpatient stay. We developed a local treatment protocol in 2019 for the use of Tolvaptan in Hospital Putrajaya (HPJ).

METHODOLOGY

This was retrospective study of inpatient use of tolvaptan in the treatment of SIADH-related hyponatremia in HPJ from January 2020 to March 2023. The criteria for inpatient tolvaptan use were according to the HPJ tolvaptan local guideline.