

EP_A026

A GRIM TURN OF OBESITY-RELATED SURGERY: WERNICKE'S ENCEPHALOPATHY, SLEEVE GASTRECTOMY GONE WRONG

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INTRODUCTION/BACKGROUND

Wernicke's encephalopathy (WE) is a devastating neurologic syndrome resulting from thiamine deficiency, typically affecting those with chronic alcoholism or poor nutrition, and post-bariatric surgery patients. We present a case of WE that developed after 3 months after laparoscopic sleeve gastrectomy.

CASE

A 38-year-old male with morbid obesity (BMI 44 kg/m²) who underwent laparoscopic sleeve gastrectomy in December 2022, was admitted due to development of a gastrocutaneous fistula and resultant intraabdominal sepsis. He was on prolonged nil by mouth and nutritional support was given through total parenteral nutrition. After one month of admission, he developed unsteadiness and blurring of vision. Physical examination noted he appeared confused, with ophthalmoplegia, bilateral horizontal nystagmus, and ataxic gait. Basic blood exams showed hypochromic microcytic anaemia with haemoglobin of 8.3 g/dL. Unfortunately, our centre was unable to provide a test for serum thiamine. Brain MRI showed symmetric hyperintensities in the thalami, mamillary bodies, tectum of the midbrain, and periventricular region, indicating Wernicke's encephalopathy. Thus, parenteral thiamine replacement was given followed by oral therapy upon discharge. A follow up visit after one month noted complete resolution of symptoms and signs.

Sleeve gastrectomy, an intervention for morbid obesity, may result to macro-micronutrient deficiency due to reduced nutrient absorption from gut alterations and reduced food intake post-surgery. Thiamine deficiency can impact the cardiovascular and nervous system, causing dry or wet beriberi. In severe cases, WE or Wernicke's Korsakoff Syndrome (WKS) may develop, and the mainstay treatment for this is to administer thiamine to reverse mental changes and prevent disease progression. Despite thiamine replacement, WE and WKS is associated with high morbidity and mortality. Our patient is fortunate to have responded well to treatment.

CONCLUSION

Thiamine deficiency after sleeve gastrectomy may lead to severe neurological impairments. Proactive prophylactic thiamine supplementation can significantly decrease the likelihood of WE and WKS.

EP_A027

BASELINE CHARACTERISTICS OF PARTICIPANTS IN THE MOLECULAR, METABOLIC AND NUTRITIONAL CHANGES AFTER METABOLIC SURGERY IN OBESE DIABETIC PATIENTS (MOMEN) STUDY

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INTRODUCTION

Metabolic surgery is proven to be effective in treating obesity-related conditions, including type 2 diabetes mellitus (T2DM). However, its impact on obese diabetic patients in Malaysia is not well understood. The MOMEN study aims to examine the molecular and metabolomic changes associated with diabetes remission in obese individuals with T2DM who undergo metabolic surgery. This paper presents the baseline anthropometric and cardiometabolic profiles of patients enrolled in the study.

METHODOLOGY

This study included 75 patients who underwent metabolic surgery in multiple hospitals and had a body mass index (BMI) of ≥ 25 kg/m² (obesity criteria defined by WHO/IASO/IOTF, 2000). Weight, height, and waist circumference (WC) measurements were obtained using a digital scale (SECA 813), a stadiometer (SECA 213), and a measuring tape (SECA 201), respectively. Fasting venous blood samples were analysed for HbA1c, uric acid, lipid, and liver profiles. Participants were categorised into three groups based on their HbA1c values (Malaysia Clinical

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/m^2 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/m^2 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/m^2 (IQR: 32.7 – 49.3 kg/m^2). 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.