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ABSTRACT BOOK

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E-POSTER PRESENTATION

PP-1

Prevalence of Obesity, Visceral Adiposity and Low Skeletal Muscle Index in an Opportunistic Health Screening Programme

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Introduction:

Obesity is a heterogeneous metabolic condition characterised not only by excess adiposity but also by adverse fat distribution and impaired muscle mass. Visceral adiposity and low skeletal muscle index (SMI) are increasingly recognised as key phenotypes of an independent cardiometabolic risk. This study aimed to determine the prevalence of obesity, elevated visceral fat level (VFL), and low SMI. Additionally, we assess for any gender differences in these parameters.

Methods:

We conducted a cross-sectional study of 211 adults who underwent bioelectrical impedance analysis (BIA) during an opportunistic health screening programme at Hospital Selayang. Anthropometric and body composition parameters were measured. Obesity was defined as BMI ≥ 27.5 kg/m². VFL ≥ 10 indicates elevated visceral adiposity. Low SMI was defined as <7.0 kg/m² in men and <5.7 kg/m² in women. All data were analysed using SPSS version 29.0.

Results:

The mean age of participants was 45.3 ± 12.6 years, with a female predominance (69.7%). Overall median BMI was 26.3 kg/m², with 41.7% (n=88) classified as obese. Elevated VFL was present in 63.5% of participants (56.3% males and 66.7% females). Low SMI was identified in 15.6% of men and 22.4% of women. Women demonstrated significantly higher percentage of body fat (38.5 ± 7.5 vs 30.5 ± 6.2 , $p < 0.001$) while men had significantly higher SMI compared to women (7.81 ± 0.8 vs 6.34 ± 0.8 , $p < 0.001$). Females demonstrated higher visceral fat levels, although this was not statistically significant.

Conclusion:

A substantial proportion of individuals in this cohort had obesity, elevated visceral fat level, and low skeletal muscle index. These findings highlight the dual burden of adiposity and sarcopenia-related risk in middle-aged adults and emphasise the need for early risk stratification and targeted lifestyle or therapeutic interventions.