Abstracts for the 38th Annual Meeting of the International Society for Pediatric and Adolescent Diabetes (ISPAD)

10–13 October, 2012
Istanbul, Turkey
One in five overweight/obese adolescents in the community has metabolic syndrome

M.Y. Jalaludin\textsuperscript{1}, A.F. Abang Abdullah\textsuperscript{1}, N. Saiman\textsuperscript{1}, N. Samingan\textsuperscript{1}, Z. Mohamed\textsuperscript{2} & F. Harun\textsuperscript{1}

\textsuperscript{1}Faculty of Medicine, University Malaya, Department of Paediatrics, Kuala Lumpur, Malaysia; \textsuperscript{2}Faculty of Medicine, University Malaya, Department of Pharmacology, Kuala Lumpur, Malaysia

Introduction: Childhood obesity is on the rise globally, and Malaysia is of no exception. The major concern of childhood obesity is that it is highly associated with metabolic syndrome which predispose an early risk of cardiovascular disease and type 2 diabetes mellitus.

Objective: To determine the rate of metabolic syndrome in overweight/obese adolescents in the community.

Methodology: Overweight (OW) and obese (OB) adolescents who have never seek medical attention, were identified from schools in a local township and invited to attend a one-day obesity workshop. Anthropometric and waist measurements, together with fasting bloods were taken. Metabolic syndrome was defined using International Diabetes Federation (IDF) 2007 Guidelines i.e presence of abdominal adiposity (WC >90th centile for age and gender) plus two/more clinical features (i.e high fasting plasma glucose (FPG >5.6 mmol/l), hypertension (BP >130/85 mmHg), elevated triglyceride (TG >1.7 mmol/l) and low HDL-cholesterol (<1.03 mmol/l).

Results: A total of 172 adolescents (19.7\% OW, 80.3\% OB) attended the workshop; with 96 (55.8\%) were males and mean age 14.2 years (ranges 12–17 years). Abnormal WC was documented in 157 (91.3\%); 18 (10.4\%) had high FPG and 61 (35.5\%) had hypertension. Nineteen (11.0\%) had high TG while 43 (25.0\%) had low HDL. Thirty three (19.2\%) fulfilled metabolic syndrome criteria (30.7\% were OW, 59.3\% were OB).

Conclusion: The prevalence of metabolic syndrome among the overweight/obese adolescents in this community was high. Routine screening by the school health authority is highly recommended to help reduce the risk of complications.