Objective To investigate cognitive function in obese Egyptian adolescents.

Methods A stratified-cluster proportionate random sampling was used to select a representative sample of 4899 pupils in preparatory school aged 12–15 year. Overweight was defined as BMI ≥85th but <95th percentile, while obesity as ≥95th BMI percentile, using Egyptian percentile. Wechsler Intelligence Scale and Executive Function test were used to assess cognitive function.

Results The prevalence of overweight was 14.9% and obesity was 6.6%. The children’s mean full scale IQ was 89.54. Wechsler Intelligence Scale revealed significant differences in performance intelligence quotient (PIQ) scores between overweight and obese children. Parental educational was significantly related to total intelligence quotient (T IQ) (p < 0.03). Executive function was significantly impaired in obese adolescents. Executive function was significantly lower in obese than overweight adolescents. After adjustment for age and parental education level female obese adolescents had lower cognitive function than male adolescents. BMI and waist circumference were the best predictor of impaired cognitive function in obese and overweight adolescents.

Conclusion Overweight and obesity were associated with cognitive dysfunction in adolescents.

Atherosclerosis Risk Factors in Obese Children and Adolescents

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Introduction Atherosclerosis is among the important long term complications and leading causes of death among obese children and adolescents. Its risk factors (RFs) include mainly: high body mass index (BMI), central obesity, smoking, lack of physical activity (PA), hypertension, hyperglycemia, elevated uric acid (UA), alanine aminotransferase (ALT), inflammation, adhesion molecules (as E-selectin) and highly sensitive (hs) CRP.

Aim of the work To determine the extent and severity of the aforementioned obesity-related atherosclerotic risk factors among school aged children and adolescents.

Subjects and methods The sample has included 98 obese (non-syndromic) and 36 non obese control subjects aged 6–16 years. A questionnaire was filled to evaluate the daily and weekly PA calculated in hours, anthropometry was done and blood pressure was measured, together with assessment of serum lipid profile and levels of fasting blood sugar, ALT, UA, E-selectin and hs CRP.

Results 85% of obese group have shown 4 or 5 atherosclerotic RFs. One or more features of abnormal lipid profile were found in 94% of obese group with 73% showing high cholesterol level. ALT and UA were significantly higher in the obese group, similarly E-selectin that was elevated in 71% of obese and hs CRP were significantly higher among obese. FBS did not show similar significant elevations. Positive correlations were found between cholesterol, E-selectin and hs CRP with BMI and waist/hip ratio.

Conclusion Most of obese children and adolescents do suffer from some risk factors that can lead to an earlier and greater risk for developing atherosclerosis.

Vitamin D deficiency and secondary hyperparathyroidism in obese children

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Introduction Obesity subjects individuals into metabolic and endocrine disorders. Thus obesity may increase the risk of vitamin D deficiency. This text aims at studying the prevalence of vitamin D deficiency and secondary hyperparathyroidism in obese children. In a non-randomized...