

Visceral adiposity and its association with serum lipids in female obese teenagers

Adiposidad visceral y su asociación con lípidos séricos e insulinemia en adolescentes obesas

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Background: Increased visceral or abdominal adipose tissue in children and adults is strongly associated with metabolic and a variety of chronic diseases. **Aim:** To study the association between visceral or external body measurements of adiposity with blood lipids, glucose and insulin levels, in obese female adolescents. **Material and methods:** In a cross-sectional study, 47 obese female adolescents (body mass index (BMI) >95th percentile) aged 10 to 15 years, were analyzed. Weight, height, BMI, Tanner pubertal stages, skinfold thickness, waist circumference, waist-to-hip ratio, fasting and 120 min post prandial blood glucose, serum insulin, and lipid profile were studied. Visceral fat was assessed by computed tomography at the L4-L5 level, measuring the fat area or the length of a straight drawn line between the spine and the internal border of the rectus abdominus muscle. **Results:** No association between lipid profile and BMI or external body measurements (skinfold thickness, waist circum