

Adrenarche in Prader-Willi syndrome appears not related to insulin sensitivity and serum adiponectin

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Prader-Willi syndrome (PWS) is a genetic disorder characterized by dysmorphic features, obesity, hypogonadism, hypotonia and mental retardation. Obesity has been linked to insulin resistance and the latter has also been associated with premature adrenarche. Since up to date a controlled study to investigate adrenarche and its hormonal regulation was lacking in PWS, our aim was to assess whether prepubertal PWS patients develop premature adrenarche and its relationship with markers of insulin sensitivity. Fourteen prepubertal children with PWS (6 M, 8 F) and 10 non-syndromal simple obese matched controls (5 M, 5 F) participated (mean age: 7.62 ± 1.84 years). A fasting blood sample was obtained for adrenal and ovarian androgens, sex hormone binding globulin, insulin-like growth factor-I (IGF-I), insulin-like growth factor binding protein-1, leptin, adiponectin and a lipid profile. Thereafter an oral glucose tolerance test was performed. PWS patients were smaller at birth and a higher pro