Role of the Androgen Receptor Gene CAG Repeat Polymorphism on the Sequence of Pubertal Events and Adiposity in Girls with High Dehydroepiandrosterone Sulfate Level

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Study Objective: The androgen receptor (AR) harbors a variable repeat number of glutamine residues codified by (CAG)n, which seems to inversely affect AR transcriptional activity. We assessed whether (CAG)n affects the sequence of the androgen-sensitive pubertal events and body composition in prepubertal girls. Design, Setting, Participants, and Interventions: Nested case-control study within the Growth and Obesity Cohort Study of 1196 low-middle income children (approximately 50% girls) from a university clinic in Santiago, Chile. Cases were girls with high dehydroepiandrosterone sulfate (DHEAS; >42 ?g/dL; HD) at age 7.0 (±0.4) years (n = 58). On follow-up, 32 of them had thelarche (TB2) before the age of pubarche (PH2) and 26 had PH2 before the age of TB2. As controls, 107 age-matched girls with normal DHEAS (?42 ?g/dL; ND) were selected. Main Outcome Measures: Methylation-weighted mean (CAG)n (mw[CAG]n) was calcula