

# No evidence of association between the serotonin 2A receptor -1438G/A promoter polymorphism and childhood obesity in a Spanish population: A case-parent study and a matched case-control study

Santos, J. L.

Ochoa, M. C.

Patiño, A.

Azcona, C.

Martínez, J. A.

Marti, A.

Serotonin has been related to feeding behaviour and body weight control through its suppressive effect on appetite. Conflicting results have been published in the literature regarding the association between the -1438 G/A promoter polymorphism of the 5HT2A gene with obesity-related variables. The aim of this study was to assess the association between the -1438 G/A polymorphism of the 5HT2A gene with childhood obesity in a Spanish population. A total of 136 cases aged 6-16 years with BMI above the 97th percentile of the Spanish BMI reference data for age and gender were matched by gender and age ( $\pm 6$  months) with 136 controls. Additionally, 43 obese children and their parents were selected for a family-based association study (case-parent study). Genotyping was carried out by polymerase chain reaction and restriction enzyme analysis. Conditional logistic regression and transmission/ disequilibrium test were used to assess genotype-obesity association. In the matched case-control study,