

S46-02

INFLUENCE OF THE MOTHER'S EMOTIONAL STATE ON INFANT IRRITABILITY IS MODERATED BY THE 5-HTTLPR POLYMORPHISM

J. Sanjuan¹, J.L. Ivorra¹, M. Jover², J.M. Carot³, R. de Frutos¹, M.D. Molto¹

¹Valencia University, ²Clinic Hospital Valencia, ³Data Analysis Department, Polytechnic University, Valencia, Spain

The serotonin transporter gene-linked polymorphic region (5-HTTLPR) may moderate an individual's response to stress. This study analyzes how the infant 5-HTTLPR may interact with the level of their mother's emotional state to affect infant irritability.

A prospective study was carried out with 314 newborns and their mothers. Infant irritability and the mother emotional state were evaluated at 8 and 32 weeks after childbirth. These variables were correlated with the 5-HTTLPR genotypes of both the infants and their mothers. The irritability score of infants with the *s* allele of 5-HTTLPR showed a linear relationship with their mother's anxiety at both 8 ($P=0.009$) and 32 weeks ($P=0.008$). In infants carrying the *ll* genotype irritability was independent of their mother's anxiety. This study provided evidence that the promoter 5-HTTLPR polymorphism could moderate the influence of the mother's anxiety on infant irritability.