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CANNABIS USE AND AGE AT ONSET OF PSYCHOSIS: FURTHER EVIDENCE OF INTERACTION WITH COMT VAL158MET POLYMORPHISM

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Introduction: Different studies have confirmed the association between cannabis use and psychosis and, also, the relationship between age at first cannabis use and age at onset of psychosis (Henquet et al 2005, Barnes et al 2006). In a young psychiatric sample, we aimed to investigate the correlation between cannabis use and the age at onset of psychotic and non-psychotic symptoms and whether this relationship is modulated by the genetic variability at COMT, CNR1 and CHRNA7 genes.

Methods: The sample comprised 157 Caucasian patients (mean age:17.01(3.6)) diagnosed following DSM-IV-TR criteria: 80 patients with schizophrenia-spectrum disorders, 77 patients with affective or conduct disorders. Cannabis use was assessed with UNICA-A and DIGS scales (Nurnberger 1994) and 49% individuals were classified as consumers. SNPs were genotyped using Taqman 5'-exonuclease assays.

Results: We observed a positive relationship between age at first cannabis use and age at onset in, both, schizophrenia-spectrum ($\beta=1.44$ $p<0.001$) and other psychiatric disorders ($\beta=0.56$ $p<0.002$). An interaction was observed between COMT Val158Met polymorphism and cannabis use specifically within schizophrenia-spectrum disorders' group ($\beta=-2.72$ $p=0.04$), with Val/Val genotype carriers showing an earlier age of onset than Val/Met carriers, and these, lower than the Met/Met carriers. No modulation effect of CNR1 or CHRNA7 polymorphisms was observed.

Conclusions: Our results seem to indicate the importance of maturation timing and brain development in which exposition to cannabis occurs. We provide new evidence about the COMT modulation effect on the association between cannabis use and age at onset of symptoms, specifically in individuals affected by schizophrenia-spectrum disorders.