



P31: ASSOCIATIONS OF SERUM URIC ACID AND SLC2A9 VARIANT WITH DEPRESSIVE AND ANXIETY DISORDERS: A POPULATION-BASED STUDY.

Tanica Lyngdoh¹, Murielle Bochud¹, Jennifer Glaus², Enrique Castelao², Gerard Waeber³, Peter Vollenweider³, Martin Preisig²

¹*Institut de Médecine Sociale et Préventive*

²*Department of Psychiatry, CHUV, Lausanne, Switzerland*

³*Department of Medicine, Internal Medicine, CHUV and Faculty of Biology and Medicine, Lausanne, Switzerland*

Background:

Limited information exists regarding the association between serum uric acid (SUA) and psychiatric disorders. We explored the relationship between SUA and subtypes of major depressive disorder (MDD) and specific anxiety disorders. Additionally, we examined the association of SLC2A9 rs6855911 variant with anxiety disorders.

Methods:

We conducted a cross-sectional analysis on 3,716 individuals aged 35-66 years previously selected for the population-based CoLaus survey and who agreed to undergo further psychiatric evaluation. SUA was measured using uricase-PAP method. The French translation of the semi-structured Diagnostic Interview for Genetic Studies was used to establish lifetime and current diagnoses of depression and anxiety disorders according to the DSM-IV criteria.

Results:

Men reported significantly higher levels of SUA compared to women (357 ± 74 $\mu\text{mol/L}$ vs. 263 ± 64 $\mu\text{mol/L}$). The prevalence of lifetime and current MDD was 44% and 18% respectively while the corresponding estimates for any anxiety disorders were 18% and 10% respectively. A quadratic hockey-stick shaped curve explained the relationship between SUA and social phobia better than a linear trend. However, with regards to the other specific anxiety disorders and other subtypes of MDD, there was no consistent pattern of association. Further analyses using SLC2A9 rs6855911 variant, known to be strongly associated with SUA, supported the quadratic relationship observed between SUA phenotype and social phobia.

Conclusions:

A quadratic relationship between SUA and social phobia was observed consistent with a protective effect of moderately elevated SUA on social phobia, which disappears at higher concentrations. Further studies are needed to confirm our observations.