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Topic: EPW15 - e-Poster Walk Session 15: Bipolar Disorders

Is the Molecular Clock Ticking Differently in Bipolar Disorder?

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Introduction:

Bipolar Disorder is a devastating disease with a genetic heritability. An orchestra of around 500 gene variants is leading to vulnerability.

One interesting candidate gene group are the so-called CLOCK GENES. The molecular 24h clock has several CLOCK GENES and the last gene ARNTL encodes for an activator of MAOA transcription and leads therefore to changes in neurotransmitter levels.

Methods:

Genotyping of 150 participants with Bipolar Disorder and 78 healthy controls with the Illumina GWAS chip Omniexpress 1.1. Hypothesis driven extraction of ARNTL SNPs with the software PLINK. Statistical analysis with Chi square test with SPSS.

Results:

Patients with Bipolar Disorder differ significantly in ARNTL genotypes compared to healthy controls. Details are presented during the poster session.

Discussion:

Circadian rhythms seem to play an important pathogenetic mechanism in Bipolar Disorder.