

Article: 0271

Topic: EPO01 - e-Poster Oral 01: Schizophrenia 1

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## Lifetime Antipsychotic Medication and Cognitive Performance in Schizophrenia at Age 43-years - the Northern Finland Birth Cohort 1966

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**Introduction:** The effects of long-term antipsychotic medication on cognition in schizophrenia are unclear (Husa A.P. et al., *Schizophr. Res.* 2014).

**Objectives:** Understanding how long-term antipsychotic treatment affects cognition is crucial for the development of safe, evidence-based treatment of schizophrenia.

**Aims:** To analyse the association between cumulative lifetime antipsychotic dose and cognition in schizophrenia at age 43 years in a general population sample.

**Methods:** Sixty (33 males) schizophrenia spectrum subjects from the Northern Finland Birth Cohort 1966 were assessed at age 43 years by California Verbal Learning Test, Visual Object Learning Test, Abstraction Inhibition and Working Memory task, Verbal fluency, Visual series, Vocabulary, Digit Span and Matrix reasoning. Cumulative lifetime antipsychotic dose-years were collected from treatment records and interviews. A factor analysis based on the cognitive tests resulted in one cognitive factor. The association between this cognitive composite score and antipsychotic dose-years was analysed by linear regression.

**Results:** Higher lifetime antipsychotic dose-years were statistically significantly associated with poorer cognitive composite score at age 43 years ( $B=-0.32$ ,  $p<0.001$ ), also when adjusted for gender, onset age, remission and number of hospital treatment days ( $B=-0.42$ ,  $p=0.008$ ).

**Conclusions:** To our knowledge, this is the first report of an association between cumulative lifetime antipsychotic dose and cognition in midlife in schizophrenia. Based on this data, the use of high antipsychotic doses may relate to poorer cognitive functioning in schizophrenia after twenty years of illness. These results do not support the view that antipsychotics prevent cognitive decline or promote cognitive recovery in schizophrenia.