

Publication

An overlapping pattern of cerebral cortical thinning is associated with both positive symptoms and aggression in schizophrenia via the ENIGMA consortium

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Positive symptoms are a useful predictor of aggression in schizophrenia. Although a similar pattern of abnormal brain structures related to both positive symptoms and aggression has been reported, this observation has not yet been confirmed in a single sample.; To study the association between positive symptoms and aggression in schizophrenia on a neurobiological level, a prospective meta-analytic approach was employed to analyze harmonized structural neuroimaging data from 10 research centers worldwide. We analyzed brain MRI scans from 902 individuals with a primary diagnosis of schizophrenia and 952 healthy controls.; The result identified a widespread cortical thickness reduction in schizophrenia compared to their controls. Two separate meta-regression analyses revealed that a common pattern of reduced cortical gray matter thickness within the left lateral temporal lobe and right midcingulate cortex was significantly associated with both positive symptoms and aggression.; These findings suggested that positive symptoms such as formal thought disorder and auditory misperception, combined with cognitive impairments reflecting difficulties in deploying an adaptive control toward perceived threats, could escalate the likelihood of aggression in schizophrenia.

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