

Study finds bidirectional relationship between schizophrenia and epilepsy

September 19 2011

Researchers from Taiwan have confirmed a bidirectional relation between schizophrenia and epilepsy. The study published today in *Epilepsia*, a journal of the International League Against Epilepsy (ILAE), reports that patients with epilepsy were nearly 8 times more likely to develop schizophrenia and those with schizophrenia were close to 6 times more likely to develop epilepsy.

Prior clinical studies have shown a prevalence of psychosis among [epilepsy patients](#) and studies of [psychiatric illness](#) have found a strong relationship between schizophrenia and epilepsy, suggesting a shared susceptibility between the diseases that may be a result of genetic, environmental or neurobiological causes. While a number of studies have established a bidirectional relationship between depression, [mood disorder](#) and epilepsy, the current study is the first to investigate this type of relation between schizophrenia and epilepsy.

Using data from the Taiwan National Health Insurance database, the team identified 5195 patients with schizophrenia and 11527 patients with epilepsy who were diagnosed between 1999 and 2008. The [patient groups](#) were compared to age and sex-matched controls. Analysis included the incidence and risk of developing epilepsy in the schizophrenia patient group and schizophrenia in the epilepsy cohort.

The findings show that the incidence of epilepsy was higher in the schizophrenia patient group at 6.99 per 1,000 person-years compared to 1.19 in the non-schizophrenia control. Incidence of schizophrenia was

3.53 per 1,000 person-years for patient with epilepsy compared to 0.46 in the non-epilepsy group. Researchers also reported that schizophrenia incidence was slightly higher in men with epilepsy than in women with the disease.

"Our research results show a strong bidirectional relation between [schizophrenia](#) and epilepsy," said lead author I-Ching Chou, M.D., with China Medical University Hospital and Associate Professor with China Medical University in Taichung, Taiwan. "This relationship may be due to common pathogenesis in these diseases such as genetic susceptibility and environmental factors, but further investigation of the pathological mechanisms are needed."

More information: "Bidirectional Relation Between Schizophrenia and Epilepsy: A Population-Based Retrospective Cohort Study." Yu-Tzu Chang, Pei-Chun Chen, I-Ju Tsai, Fung-Chang Sung, Zheng-Nan Chin, Huang-Tsung Kuo, Chang-Hai Tsai and I-Ching Chou. *Epilepsia*; Published Online: September 19, 2011 ([DOI: 10.1111/j.1528-1167.2011.03268.x](#)).

Provided by Wiley

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