



Obstetric Complications, Cannabis Use Predict Early Psychosis

April 29, 2012 (Florence, Italy) — Obstetric complications and cannabis use are the 2 strongest predictors of early onset of psychosis, new research shows.

Presented here at the 3rd Biennial Schizophrenia International Research Society (SIRS) Conference,

results from an early intervention for psychosis pilot service known as DETECT (Dublin East Treatment and Early Care Team) showed that after controlling for all environmental factors, obstetric complications had the strongest significant influence on age of onset, followed by cannabis use.

A number of environmental factors have been associated with the age of onset for psychotic disorders, including cannabis use, social class of origin, and obstetric complications, the researchers note.

In addition, sex and a positive family history of a psychotic disorder that could have a biological or environmental mechanism have also been shown to influence the age of psychosis onset.

Although these factors have been investigated extensively on an individual basis, there has been little research into the possible interactions between these risk factors and their overall influence on age of onset, the researchers state.

"Previous studies have investigated one or two of these factors, but these factors are interrelated," principal investigator Brian O'Donoghue, MRCPsych, from the University College, Dublin, Ireland, told Medscape Medical News.

"So for example, more males smoke cannabis, or there might be a higher rate of obstetric complications in patients, depending on social class. You can't really look at one or two in isolation."

"Essentially, we don't know what causes psychosis. It could be genes or environment or an interaction between the two. By looking at a large cohort, it can provide a strong indication of the causes of psychosis," he added.

Key Risk Factors

The researchers examined whether sex, social class of origin, family history of psychosis, cannabis abuse, and obstetric complications were associated with age of onset of first episode of psychosis.

The investigators examined the interplay between all of these established individual risk factors. Two cohorts of patients were included in the study. They had attended either the Cluain Mhuire mental health service from 1995 to 1999 or the DETECT Early Intervention for Psychosis Service from 2005 to 2011.

Participants were interviewed at presentation along with their family members to establish when the illness started and also to identify any obstetric complications.

A total of 608 patients with first episode of psychosis were included.

The investigators found that 19% of these patients had a family history of psychosis and that 44% had had an obstetric complication. The median age of onset of the first episode of psychosis was 27 years.

"We found that of these 5 factors, actually only 3 were associated with an earlier age of onset," he reported. "These were being male, a history of cannabis abuse, and obstetric complications."

Patients with a history of cannabis abuse had a median age of onset of 22.8 years (odds ratio [OR], 3.01; $P < .001$); for patients who had obstetric complications, it was 24.6 years (OR, 2.27; $P = .002$); and for being male, it was 26 years (OR, 1.95; $P < .001$).

Regarding interactions between the risk factors, Dr. O'Donoghue said, "When we controlled for cannabis abuse, then age of onset did not vary between males and females."

The Earlier, the Better

A Cox regression analysis was carried out. It showed hazard ratios of 0.87 ($P = .49$); 1.54 ($P = .06$); 0.95 ($P = .81$); 0.95 ($P = .77$); and 1.48 ($P = .03$) for male sex, cannabis abuse, family history of psychosis, higher social class of origin, and obstetric complications, respectively.

Breakdown of obstetric complications showed that all except 2 specific complications were associated with an earlier age of onset, including preeclampsia (OR, 4.4), breech or other abnormal presentation (OR, 4.42), labor duration longer than 36 hours or less than 3 hours (OR, 2.8), cord prolapse (OR, 2.44), and forceps delivery (OR, 2.36).

Dr. O'Donoghue said that the results demonstrate that environmental effects from day 1 of an individual's life can influence psychosis onset.

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