

Teens may provide clues to link between bipolar and heart disease

For the first time, researchers will be comparing blood vessel functioning of teens with bipolar disorder and healthy teens, to look for potential clues about heart disease risk.

Bipolar disorder is a recurrent and severe mood disorder defined by episodes of mania (abnormally euphoric or irritable mood together with other symptoms) and depression. It is the sixth leading cause of disability worldwide.

However, the leading cause of death for individuals with bipolar disorder is heart disease, which is more common and has an earlier onset than in the general population. This contributes to a reduced life expectancy of approximately 15 years.

“This research will help us better understand the link between bipolar disorder and heart disease,” says Dr. Benjamin Goldstein, youth psychiatrist and researcher at Sunnybrook Health Sciences Centre. “This is a major step toward our goals of identifying those at risk of heart disease at the earliest stages, and tailoring treatment strategies in order to reduce their risk of heart disease in the future.”

Despite the strength of the association between bipolar disorder and heart disease, little is known about the biological factors involved. Funded by the Heart & Stroke Foundation of Ontario, this research will test blood vessel function using non-invasive, high-resolution ultrasound imaging.

This innovative study will also look at markers of inflammation and other proteins in the blood that have previously been linked with bipolar disorder and with heart disease, but never before studied in combination, to better understand this link.

“Because adults with bipolar disorder experience heart disease at far younger ages than other adults, a better understanding of the reasons for this association is crucial,” adds Dr. Goldstein, also an assistant professor in the departments of psychiatry and pharmacology at the University of Toronto.

The researchers predict that the connection will be clearer in teenagers, because they have not experienced decades of bipolar disorder and its related strain on the body, and because most are medically healthy. “Teens can help us learn more about the underlying causes of this association, which would later in life be more difficult to tease apart from the effects of long-term symptoms, stress, and lifestyle.”

Dr. Brad Strauss, a co-investigator on this study and Program Chief in the Schulich Heart Centre in Sunnybrook, says this collaborative research “could have significant implications for following these patients into adulthood and aggressively identifying and treating other cardiac risk factors”.

Additionally, the unique collaboration “between psychiatry, cardiology, and radiology is an example of how we can leverage expertise to create knowledge of risk factors for heart disease and potentially improve prevention and treatment in the future,” says Vincent Bowman, Director of Research, Heart and Stroke Foundation of Ontario.

The study is currently recruiting patients and will run for two years. It is truly unique as the link has never been studied before in youth with bipolar disorder, and the collaboration across the specialties of psychiatry, cardiology, and radiology is a rarity. Sunnybrook provides an ideal setting for developing this type of cutting edge team of experts.

To learn more about research on adolescent bipolar disorder, please contact Katelyn at 416-480-5283.

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