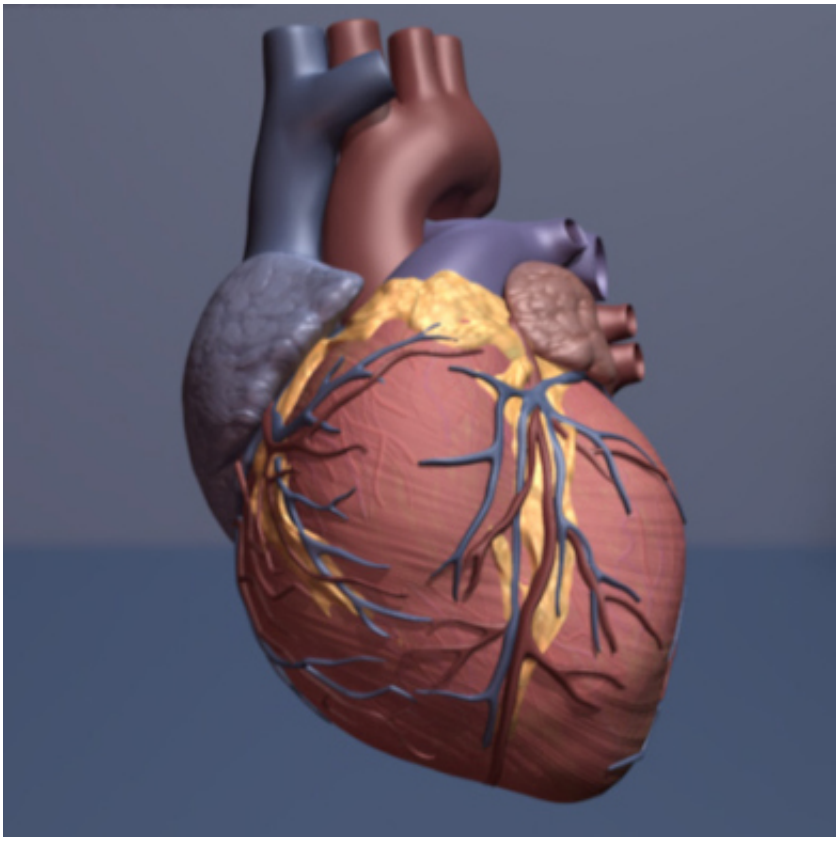
Post-traumatic stress disorder seen in many adults living with congenital heart disease

March 15 2016



Human heart. Credit: copyright American Heart Association

Adults living with congenital heart disease (CHD) may have a significantly higher risk of post-traumatic stress disorder (PTSD) than people in the general population.

A single-center study from The Children's Hospital of Philadelphia (CHOP) found that as many as one in five adult patients had PTSD symptoms, with about one in 10 patients having symptoms directly related to their heart condition. The researchers suggest that clinicians and caregivers need to be aware of possible PTSD symptoms, such as anxiety and depression, in their patients.

"Although the life expectancy of adults living with CHD has improved, ongoing care may include multiple surgeries and procedures," said the study's senior author, Yuli Kim, M.D., a cardiologist at CHOP. "These patients remain at risk for both cardiac and non-cardiac effects of their chronic condition, and face unique life stressors that may place them at elevated risk for psychological stress."

Kim is the director of the Philadelphia Adult Congenital Heart Center, a joint project of CHOP and the Hospital of the University of Pennsylvania. Her research team's study appeared in the March issue of the *American Journal of Cardiology*. It was the first analysis of PTSD in an adult CHD population.

Due to surgical and medical advances, there are now more American adults living with congenital heart defects than the annual number of children being born with them, even though heart defects are the most common birth defect in the U.S.

The researchers enrolled 134 patients with congenital heart defects, and used two validated mental health scales with questions related to anxiety, depression and PTSD. Of 134 patients who completed one scale, 27 (21 percent) met criteria for global PTSD symptoms. Of the 127 patients who completed another scale, 14 patients (11 percent) had PTSD symptoms specifically related to their CHD or treatment.

The high prevalence of PTSD in this patient cohort—11 to 21

percent—is several times higher than the 3.5 percent rate observed in the general population. The authors noted that the prevalence is comparable to that found in children with CHD and in adults with acquired heart disease.

The researchers also found two factors most strongly linked to PTSD in their patients: elevated depressive symptoms and the patient's most recent cardiac surgery. Patients who had undergone cardiac surgery at an earlier year were more likely to have PTSD. This finding may reflect recent medical and surgical advances that lessen traumatic impacts, or alternatively, a "residual stress" explanation—that traumatic stress produces chronic, lasting effects.

The study team also noted that non-medical traumatic events may have contributed to PTSD in some patients. In addition, said the authors, the self-report measurements used in the study may not be as accurate as a clinical interview.

Overall, the new study may reveal important unmet needs in a growing population of patients. "The high prevalence of PTSD detected in these adult CHD patients has important clinical implications," said corresponding author Lisa X. Deng, of CHOP's Division of Cardiology. She noted that less than half of the study patients who showed PTSD symptoms were being treated for PTSD, and added that, "We need to conduct more research to identify measures along the lifespan to support our patients and ensure that they have a good quality of life."

More information: Lisa X. Deng et al. Prevalence and Correlates of Post-traumatic Stress Disorder in Adults With Congenital Heart Disease, *The American Journal of Cardiology* (2016). DOI: 10.1016/j.amjcard.2015.11.065