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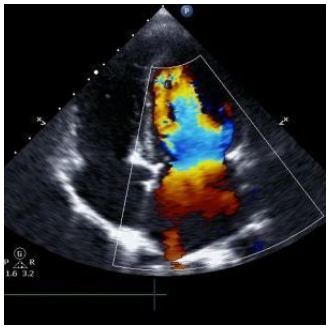
Heart Ultrasound Determines Dementia Risk



A research team led by Dr. Lin Yee Chen from the University of Minnesota (Minneapolis, MN USA) recently described cardiac markers visualised by echocardiography that can determine dementia risk. This study, reported in *JAMA,* is the first to report an association between echocardiographic measures of left atrial heart function with dementia.

Atrial myopathy is a condition characterized by abnormal left atrial function and size. Since lower left atrial reservoir function is associated with silent brain infarcts and white-matter hyperintensities, the research team examined if poor left atrial function and size is associated with dementia.

About 4,096 subjects (mean age of 35 years, 60% women) originating from the Atherosclerosis Risk in Communities (ARIC) study participated in this study. Of the participants, 531 developed dementia over a six-year period. Worse left atrial function as determined by echocardiography, but not size, was associated with a higher risk for dementia. Specifically, dementia development in the lowest quintile of left atrial function measures (reservoir strain, conduit strain, and contractile strain) was 1.5 to 2.0-fold higher that of the highest quintile. Cardiovascular disease, atrial fibrillation, and common measures of left atrial size were not significantly associated with dementia.

The study authors conclude that impaired left atrial heart function may be a risk factor associated with dementia. In an accompanying editorial, Dr. Shyam Prabhakaran from the University of Chicago and Dr. Philip Greenland from Northwestern University wrote that given the 'given the exploratory nature of the study findings, prospective validation in other cohorts is clearly necessary' and that a casual link may be established given randomized clinical trials testing treatment of impaired left atrial heart function.

Source: JAMA, JAMA

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