Long-term cardiac effects for childhood cancer survivors

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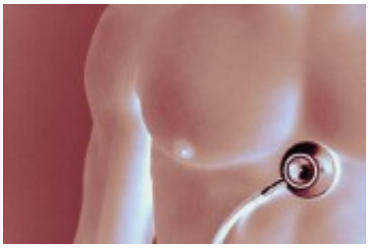

(HealthDay) -- Regardless of exposure to cardiotoxic cancer therapies, survivors of childhood cancers display cardiovascular abnormalities and have markers of increased systemic inflammation and atherosclerotic disease, according to research published online March 5 in the *Journal of Clinical Oncology*.

Steven E. Lipshultz, M.D., of the University of Miami Miller School of Medicine, and colleagues evaluated atherosclerotic disease risk and echocardiographic characteristics from 201 survivors of childhood cancer, 156 of whom had been exposed to cardiotoxic cancer treatments, and compared results with 76 sibling controls.

After a median 11 years of follow-up, the researchers found that the left ventricular (LV) mass was below normal for all cancer survivors, regardless of cardiotoxic treatment exposure. However, those exposed to

a cardiotoxic therapy also displayed below normal wall thickness, contractility, and fractional shortening and increased LV afterload. Female unexposed survivors had below normal LV wall thickness. Compared with the sibling control group, survivors had higher levels of N-terminal pro-brain natriuretic peptide, mean fasting serum non-high-density lipoprotein cholesterol, insulin, and high-sensitivity C-reactive protein. For exposed and unexposed survivors, the age-adjusted, predicted-to-ideal 30-year risk of myocardial infarction, stroke, or coronary death was significantly higher compared with siblings (2.16 and 2.12, respectively, versus 1.70).

"Survivors of childhood cancer, regardless of exposure to cardiotoxic treatments, have cardiovascular abnormalities related not only to abnormal LV structure and function but also to increased traditional risk factors for atherosclerotic disease and systemic inflammation," the authors write. "Our findings suggest that all survivors have a higher long-term risk of cardiovascular diseases and may benefit from screening across several cardiovascular domains."

More information: Abstract
Full Text (subscription or payment may be required)