

CARDIOVASCULAR RISK FACTOR CLUSTER IN ADULT SURVIVORS OF PEDIATRIC CANCER: A REPORT FROM THE CHILDHOOD CANCER SURVIVOR STUDY (CCSS)

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Background: As childhood cancer survivors age, significant increases in cardiovascular disease are being reported. The presence of Metabolic Syndrome (MS) can increase the risk of cardiovascular disease three-fold.

Objective: Determine the prevalence of Cardiovascular Risk Factor (CVRF) cluster as a surrogate for MS and determine the associated demographic and treatment risk factors.

Design/Methods: CVRF cluster is defined as 3 of the following 4 conditions: BMI ≥ 30 kg/m², taking a medication used to treat hypertension, diabetes or dyslipidemia. Data from 9308 survivors and 2951 siblings from the CCSS were analyzed using logistic regression. Demographic, cancer diagnosis and treatment data were obtained from medical records. Information about height, weight, age, healthcare visits, medications and medical problems were ascertained from the baseline and 2002-2003 surveys.

Results: Survivors were less likely to have a BMI ≥ 30 kg/m², but more likely to be taking a medication for hypertension (OR 1.8 95% CI 1.5-2.2), dyslipidemia (OR 1.3 95% CI 1.0-1.6) and diabetes (OR 1.6 95% CI 1.2-2.3). Survivors were 1.3 (95% CI 0.9-2.0) times more likely than siblings to have CVRF cluster and 2.9 (95% CI 0.7-12.5) times more likely to have all 4 criteria. In multivariable logistic regression analysis, survivors interviewed at an older age (< 30 vs. ≥ 40 years of age) were more likely to have CVRF cluster (OR 5.6 95% CI 3.2-9.8) or all 4 (OR 20.0 95% CI 2.5-162.8) criteria. Abdominal radiation (OR 1.8 95% CI 1.3-2.9), lack of physical activity (OR 2.1 95% CI 1.4-3.1) and current steroid therapy (OR 3.6 95% CI 1.3-10.3) were associated with CVRF cluster. Gender, ethnicity, income, bone marrow transplant, smoking, growth hormone deficiency did not increase risk of CVRF cluster.

Conclusion: CVRFs are more prevalent in survivors of childhood cancer than in siblings and the discrepancy may continue to increase with age.

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Category - Caridac Poster or presentation – no preference