Heart Disease and Stroke Are Major Killers of People With Cancer

Those with bladder, larynx, prostate, womb, bowel and breast cancers have the highest rate of death related to cardiovascular disease.

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As if a cancer diagnosis weren't bad enough, for many people with malignancies, cardiovascular disease (CVD) will actually be their ultimate cause of death. For people diagnosed with cancer before age 55, dying of cardiovascular disease is more than 10 times more likely than for people without cancer, a new analysis found.

Nicholas Zaorsky, MD, a radiation oncologist, and Kathleen Sturgeon, PhD, an assistant professor in public health sciences, both at Penn State College of Medicine and Penn State Cancer Institute, led a research team that analyzed data from the Surveillance, Epidemiology and End Results (SEER) database on 3.2 million people in the United States diagnosed with cancer between 1973 and 2012.

Publishing their findings in the European Heart Journal, they compared this data with CVD-related health trends—heart disease, high blood pressure, cerebrovascular disease, blocked arteries and damage to the aorta—seen in the U.S. general population. They adjusted their findings to account for differences between individuals in terms of age, race and sex.

The study focuses on 28 cancer types. Overall, cancer itself was the greatest cause of mortality:

38% (1.2 million) of people with cancer died of their malignancy. But 11% (365,700) died of some form of CVD, mostly heart disease.

Compared with the outcomes among those in the general population, the risk of dying of CVD among those with cancer was highest during the first year following their cancer diagnosis and among those younger than 35.

"We also found that among survivors with any type of cancer diagnosed before the age of 55 years, the risk of cardiovascular death was more than 10-fold greater than in the general population," Sturgeon said in a press release. "The risk of death from cardiovascular diseases is several times that of the general population in the first year of diagnosis; sometimes, this risk decreases, but for most, this risk increases as survivors are followed for 10 years or more."

In 2012, 61% of all those with cancer who died of CVD had breast, prostate or bladder cancer.

The highest proportion of CVD-related deaths was seen among those with bladder cancer (19% of these individuals died of CVD), followed by larynx (17%), prostate (17%), womb (16%), bowel (14%) and breast (12%) cancer.

“Cancer survivors with cancer of the breast, larynx, skin, Hodgkin lymphoma, thyroid, testis, prostate, endometrium, bladder, vulva and penis are about as likely to die of cardiovascular diseases as they are to die of their initial cancer,” said Sturgeon.

On the flip side, those with more aggressive and difficult-to-treat cancers—including those of the lung, liver, brain, stomach, gallbladder, pancreas, esophagus and ovary as well as multiple myeloma—were more likely to die of the cancer.

The reasons why people with cancer may be more susceptible to heart disease are complex and not fully understood. There is increasing evidence that cancer and heart disease are linked because they share many of the same risk factors, including smoking and obesity.

It’s also true that some cancer treatments may have cardiac side effects and thus contribute to CVD-related mortality. According to Zaorsky, the higher risk of CVD-related death during the first year following a cancer diagnosis may be a reflection of individuals entering medical care as a result of their cancer and thus receiving screening that diagnoses them with other health problems.

Sturgeon called for patients and providers to be more vigilant in identifying and treating cardiovascular issues in people with cancer. “We hope these findings will increase awareness in patients, primary care physicians, oncologists and cardiologists as to the risk of cardiovascular disease among cancer patients and the need for earlier, more aggressive and better-coordinated cardiovascular care,” he said.

To read a press release about the study, click here.

To read the study, click here.

To learn more about prevention, see “Exercise During Breast Cancer Treatment May Improve Cardiovascular Function.”
