Study Finds that Adult-Onset Cancer Survivors Run Greater Risk of Developing and Dying from Subsequent Cancers, Emphasizing Importance of Ongoing Surveillance and Health

A new American Cancer Society study finds that adult-onset cancer survivors run a greater risk of developing and dying from subsequent primary cancers (SPCs) than the general population. Cancers associated with smoking or obesity comprised a majority of SPC incidence and mortality among all survivors. The study appears in *JAMA*.

“These findings highlight the importance of ongoing surveillance and efforts to prevent new cancers among survivors,” said lead author, Hyuna Sung, PhD. “The number of cancer survivors who develop new cancers is projected to increase, but, until now, comprehensive data on the risk of SPCs among survivors of adult-onset cancers has been limited.”

For the study, investigators analyzed data on nearly 1.54 million cancer survivors from 1992 to 2017 from 12 Surveillance, Epidemiology, and End Results registries in the United States. The survivors analyzed were between the ages of 20 to 84 (mean age, 60.4 years), 48.8% women, and 81.5% white.

The findings suggest that among the 1,537,101 survivors, 156,442 were diagnosed with an SPC and 88,818 died of an SPC. Results found that male survivors had an 11% higher risk of developing SPCs and a 45% higher risk of dying from SPCs compared with the risk in the general population. Female survivors had a 10% higher risk of developing SPCs and a 33% higher risk of dying from SPCs.

The investigators found men who survived laryngeal cancer and Hodgkin lymphoma ran the greatest risk of developing an SPC, while men who survived gallbladder cancer ran the greatest risk of dying from an SPC. Among women, survivors of laryngeal and esophageal cancers ran the greatest risk of developing an SPC, and laryngeal cancer survivors also ran the greatest risk of SPC mortality.

Substantial variation existed in the associations of specific types of first cancers with specific types of SPC risk. However, study authors note the prevalence of smoking- and obesity-related cancers in SPC incidence and mortality. Results show the risks of smoking-related SPCs were commonly elevated among survivors of smoking-related first cancers. Among survivors of all cancers, four common smoking-related SPCs including lung, urinary bladder, oral cavity/pharynx, and esophagus, accounted for 26% to 45% of the total SPC incidence and mortality. Furthermore, lung cancer alone comprised 31% to 33% of the total mortality from SPCs. Similarly, survivors of many obesity-related cancers had an elevated risk of developing obesity-related SPCs. Among survivors of all cancers, four common obesity-related cancers colorectum, pancreas, corpus uteri, and liver, comprised 22% to 26% of total SPC mortality.

“These findings reinforce the importance of coordinated efforts by primary care clinicians to mitigate the risks of SPCs through survivorship care, with greater focus on lifestyle factors, including smoking cessation, weight management, physical activity, and healthy eating,” said Ahmedin Jemal, PhD, senior author of the paper.

Article: Sung H, Hyun N, Leach CR, Yabroff R, Jemal A. Association of First Primary Cancer With Risk of Subsequent Primary Cancer Among Survivors of Adult-Onset Cancers in the United States; *JAMA*, 2020; doi:10.1001/jama.2020.23130.

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