Head and neck cancer survivors at increased risk of suicide
25 October 2018, by Maggie Rotermund

More than 15.5 million individuals are living with a cancer diagnosis, and the number of cancer survivors is projected to be more than 20 million by 2026. Three percent of those diagnosed patients have head and neck cancer.

However, surviving cancer comes at a cost, Osazuwa-Peters said. In the immediate aftermath of diagnosis and treatment, the need to survive often overtakes concerns about functionality and aesthetics. But approximately one-half of head and neck cancer survivors become functionally disabled after completing treatment and are unable to return to work. Persistent and lasting disfigurements or loss of skills may increase depression, psychological distress, fear of recurrence and suicidal ideation.

"Now, more than ever before, people are outliving their cancer diagnosis. This makes lifelong surveillance critical—being considered a 'cancer survivor' does not tell you how well the individual is doing," Osazuwa-Peters said. "Some cancer survivors unfortunately decide that it is better that they are dead rather than being alive."

Survivors were identified from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) 18-registry database using patients diagnosed between 2000-2014.

SEER is a publicly available, nationally representative, population-based cancer database that contains more than 8 million cancer cases, with data that span four decades and cover 28 percent of the U.S. population. SEER has developed and maintained high-quality, validated data on causes of death among cancer survivors, providing insight into relative and cause-specific deaths in this population.

The study looked at patients over the age of 20 who had a first primary malignancy of the head or neck. That included squamous cell carcinomas of...
the oral cavity, pharynx, larynx, nasal cavity and sinuses. Thyroid cancer patients were excluded because while the thyroid is in the head and neck region, thyroid cancer is an endocrine cancer and is different from squamous cell carcinoma of the head and neck.

The suicide rate among the head and neck cancer patients was compared to the rates of those diagnosed with prostate; breast; lung and bronchus; colon and rectum; urinary bladder; melanoma of the skin; non-Hodgkin lymphoma; kidney and renal pelvis; corpus and uterus; leukemia; pancreas; thyroid; stomach; liver and intrahepatic bile duct; Hodgkin lymphoma; brain and other nervous system; testis; ovary; and cervix uteri.

The study authors examined the SEER data for 4,219,097 cancer survivors; of those 151,167 were diagnosed with head or neck cancer. Between 2000 and 2014, the suicide rate for those with head and neck cancer was 63.4 suicides per 100,000. For the period, the rate among other cancer survivors was 23.6 and among the general population was 17.4 per 100,000.

Only pancreatic cancer survivors had a higher suicide rate than head and neck cancer survivors at 86.4 suicides per 100,000 persons.

The study found head and neck cancer survivors are two times more likely to die by suicide than survivors of other cancers. Those with cancers in the oral cavity and pharynx have previously been found to comprise 20 percent of the head and neck cancer suicide burden among survivors.

Head and neck cancer survivors have unique treatment needs and distresses, including persistent and late effects of treatment, such as disfigurement and body image issues, swallowing difficulty, ototoxicity and depression. Pain issues and substance abuse are also more prevalent in this population.

Factors associated with a significantly increased risk of suicide included being a male, white, previously married or never married; and having regional, distant and unstaged/unknown stage disease.

Among male cancer survivors, head and neck survivors had an increased risk of suicide compared with survivors of colorectal, Hodgkin and non-Hodgkin lymphoma, kidney, leukemia, liver, melanoma, prostate, testis, thyroid and bladder cancer. Only pancreatic cancer survivors had a significantly higher risk of suicide than that of those who survived head and neck cancer.

For female survivors, head and neck cancer survivors had an increased risk of suicide compared with survivors of melanoma, Hodgkin and non-Hodgkin lymphoma, leukemia, uterine, breast, thyroid, colorectal, kidney and brain cancer.

The study also found a significant increase (27 percent) in death by suicide in the final five years of the study, compared to the period between 2000-2004, which corroborates with data from the Centers for Disease Control and Prevention that highlighted a 25 percent increase in the suicide rate in the general U.S. population since 1999.

"The rates we found in this study greatly mirror the national trends in terms of increasing incidence of suicide," Osazuwa-Peters said.

SEER data did not provide information on depression status, which is a key risk factor for suicide. Another limitation of the study is a lack of information in the data about comorbid psychiatric conditions, family history of suicide or substance abuse. Individual survivors' functional status, pain, disfigurement and other quality of life variables were not available in the SEER records.

Osazuwa-Peters said that while recent cancer initiatives have focused on survivorship and curing cancer, more needs to be done to address distress experienced by cancer patients. The study recommends physicians follow up with patients by assessing mental health concerns and do more to provide further communication and tailored interventions when needed.

More information: Nosayaba Osazuwa-Peters et al, Suicide risk among cancer survivors: Head and neck versus other cancers, Cancer (2018). DOI: