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CORR Insights®: What is the Incidence of Suicide in Patients with Bone and Soft Tissue Cancer?

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Where Are We Now?

Siracuse and colleagues performed a retrospective analysis of the Surveillance, Epidemiology, and End Results (SEER) program and found a greater incidence of suicide in patients with bone and soft-tissue cancer than the United

States general population. The authors narrowed the focus of a broader study that previously reported on the higher incidence of suicide among all patients with cancer [5]. The current study is a stark reminder of the impact of these diagnoses on patients' lives, and that clinicians need to consider more than size, depth, and grade to guide treatment.

Suicide and depression are intimately related to health-related quality-of-life, a topic that has become a movement within cancer care [2, 6]. For bone and soft-tissue cancers in particular, treatment may impact both short- and long-term function. Schreiber and colleagues [7] found that limited participation in routine life roles had the largest effect on the quality-of-life of patients with soft-tissue sarcoma. Patients with extremity sarcoma may also develop psycholog-

ical distress, with rates of anxiety and depression between 12% and 47% [5].

Where Do We Need to Go?

Improving survival while also maximizing function and quality-of-life for patients with bone and soft-tissue cancers is our goal. Not all gains need to come from novel therapeutics or reconstruction techniques; if patients with suicidal thoughts or intentions could be identified and successful interventions implemented, that would be a considerable step forward.

The study design of Siracuse and colleagues could not establish cause. Patients who received neither radiation nor surgery and may have been inoperable, as well as those with pelvic or vertebral column cancers who likely underwent extensive surgery, appeared to be at higher risk for suicide. It seems likely that the mental-health (and suicide-prevention) interventions we might consider should vary based on a number of oncological parameters. For example, the risk of suicide probably differs among patients with

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progressive metastatic disease, patients who are expected to survive the cancer diagnosis (but who might remain profoundly limited or in chronic pain), and patients whose tumors have been resected and successfully reconstructed; as such, the intensity of screening and psychological support of these groups of patients probably should vary, as well. To help guide such interventions, further study is warranted on the risk factors and contributors to suicide risk in this population.

Improving quality-of-life is an increasing focus of research questions throughout orthopaedic surgery, cancer care, and the medical field as a whole. Providing complete care for patients with bone and soft-tissue cancer goes beyond a combination of surgery, radiation, and chemotherapy. Large databases help to identify trends, as Siracuse and colleagues have done here. While institutions are increasingly collecting wide-ranging patient-reported information in clinical practice [1, 8], data collection alone will not address the elevated incidence of suicide.

How Do We Get There?

Interventions identifying and addressing depression, suicide risk, or quality-

of-life need prospective study, which could include an assessment of their ability to lower the incidence of suicide. Evidence from other cancers has shown that providing appropriate early palliative care interventions and support improves quality-of-life for patients with metastatic disease [4], although this has not yet translated into a lower risk of suicide, as far as we know. There is also a need for process-improvement research, which could guide us on how to organize screening programs in ways that are clinically meaningful as well as feasible [2, 3, 8].

Those who treat bone and soft-tissue cancer must recognize the elevated risk of suicide in this patient population. As new evidence is revealed, surgeons should not shy away from getting more involved in this important side of patient care.

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