CORR Insights

CORR Insights®: Obesity Does Not Affect Survival Outcomes in Extremity Soft Tissue Sarcoma

Megan E. Anderson MD

Where Are We Now?

Obesity is major health problem in the United States—on this, there is little debate. While improved management of cardiovascular risks has decreased the impact of obesity on mortality over time, its effect on other health

problems, such as cancer risk, has not changed [3]. Obesity increases overall cancer risk and has been shown to increase risks of many carcinomas and hematopoietic cancers [2, 4, 5]. However, there are few data on the effect of obesity in sarcoma.

Obesity also increases wound complications in orthopaedic procedures and overall perioperative complications. Although one would assume that obesity would have a negative influence on healing after sarcoma surgery because of larger incisions sometimes used in these procedures, frequent use of adjuvant radiation, and medical comorbidities carried by some of these patients, this association has not been demonstrated in the literature.

Where Do We Need To Go?

The authors investigated the influence of obesity on oncologic outcomes and wound healing in a cohort of 397 patients at a single institution. In short, there was no difference between the obese and nonobese groups in local recurrence, distant metastasis, sarcoma-specific death, or wound complications. However, the literature demonstrating obesity increasing cancer risks in other cancer types are population-based studies of tens of thousands of patients. There are no complete population-based databases in the United States for sarcoma, and sarcoma is so uncommon it would be unlikely to surface in studies like the one by Alamanda et al. We need sarcoma-specific evaluations performed by multi-institutional collaborative efforts.

This *CORR Insights*® is a commentary on the article “Obesity Does Not Affect Survival Outcomes in Extremity Soft Tissue Sarcoma” by Alamanda and colleagues available at: DOI: [10.1007/s11999-014-3714-7](https://doi.org/10.1007/s11999-014-3714-7).

The author certifies that she, or any member of her immediate family, has no funding or commercial associations (eg, consultancies, stock ownership, equity interest, patent/licensing arrangements, etc) that might pose a conflict of interest in connection with the submitted article.

All ICMJE Conflict of Interest Forms for authors and Clinical Orthopaedics and Related Research® editors and board members are on file with the publication and can be viewed on request.

The opinions expressed are those of the writers, and do not reflect the opinion or policy of *CORR*® or the Association of Bone and Joint Surgeons®.

This *CORR Insights*® comment refers to the article available at DOI: [10.1007/s11999-014-3714-7](https://doi.org/10.1007/s11999-014-3714-7).

M. E. Anderson MD (✉)
Department of Orthopaedic Surgery,
Beth Israel Deaconess Medical Center,
330 Brookline Avenue, Boston,
MA 02215, USA
e-mail: manders6@bidmc.harvard.edu

M. E. Anderson MD
Department of Orthopaedic Surgery,
Boston Children’s Hospital, 300
Longwood Avenue, Boston, MA, USA

How Do We Get There?

In cancer research and treatment, collaboration is important, and even more so for rare cancers such as sarcoma. The authors pose straightforward study questions of great interest and value to

CORR Insights

the orthopaedic oncology community, but a larger cohort of patients across several institutions is necessary to fully investigate them. Recent efforts with a prospective randomized controlled trial, Prophylactic Antibiotic Regimens in Tumor Surgery [1], led by principal investigator Michelle Ghert MD, have demonstrated that Musculoskeletal Tumor Society institutions are capable of such collaboration. The next step may involve researching specific retrospective questions similar to the current study. We should also look to create a prospective registry

that would contain patient and tumor variables.

References

1. About the parity trial. Available at <http://paritytrial.com/about-the-trial/>. Accessed June 16, 2014.
2. Calle EE, Rodriguez C, Walker-Thurmond K, Thun MJ. Overweight, obesity, and mortality from cancer in a prospectively studied cohort of US adults. *N Engl J Med*. 2003;348:1625–1638.
3. Flegal KM, Graubard BI, Williamson DF, Gail MH. Excess deaths with underweight, overweight, and obesity. *JAMA*. 2005;293:1861–1867.
4. Prospective Studies Collaboration, Whitlock G, Lewington S, Sherliker P, Clarke R, Emberson J, Halsey J, Qizilbash N, Collins R, Peto, R. Body-mass index and cause-specific mortality in 900,000 adults: collaborative analyses of 57 prospective studies. *Lancet*. 2009;373:1083–1096.
5. Renehan AG, Tyson M, Egger M, Heller RF, Zwahlen M. Body-mass index and incidence of cancer: a systematic review and meta-analysis of prospective observational studies. *Lancet*. 2008;371:569–578.