by 5 years postoperatively the counts had normalized. Data were lacking regarding bone health, second malignancy, hypogonadism and fertility. The curability of low stage seminoma and the wide range of potential late effects suggest the need for long-term monitoring.

Jerome P. Richie, MD

Re: Risk of Solid Cancer after Treatment of Testicular Germ Cell Cancer in the Platinum Era

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Editorial Comment: Evaluation of a multicenter cohort of 5,848 survivors treated for testicular cancer between 1976 and 2007 revealed 350 solid second malignancies after a median followup of 14 years, a 1.8-fold increased risk compared to the general population. Solid subsequent malignancy risk was 1.52 for patients with seminoma and 2.21 for those with nonseminomatous germ cell tumor. Platinum based chemotherapy was associated with increased HR for subsequent malignant neoplasm of 2.40, for colorectal subsequent malignancy of 3.85 and for noncolorectal gastrointestinal (GI) subsequent malignancy of 5.00. Higher platinum dosage (more than 400 mg/m^2) increased solid subsequent malignancy risk compared to surgery only (HR 2.43). The authors conclude that radiation therapy and platinum containing chemotherapy are associated with an increased risk of solid subsequent malignancy, especially GI malignancy.

Jerome P. Richie, MD

Editorial Comment: Testicular cancer therapy is a model of successful multimodality cancer treatment. Nonetheless, historical treatments have been associated with late adverse effects, including subsequent malignancy. While contemporary therapy for testicular germ cell tumors has been associated with de-escalation of treatment intensity, whether these changes have reduced the risk of second malignancy remains unknown.

This study evaluated the risk of second malignancy in a cohort of 6,175 Dutch testicular cancer survivors treated between 1976 and 2007. Compared to the general population, the risk of subsequent malignancy was 1.52-fold greater among those treated for seminoma and 2.21-fold greater among those treated for nonseminoma, corresponding to a 25-year cumulative incidence of 12.6% and 9.5%, respectively. The study failed to identify any change in observed incidence through time, although it did identify a dose dependent relationship between platinum based chemotherapy and risk of solid subsequent malignancies, most notably GI malignancies.

These data suggest that despite efforts to decrease treatment intensity for testicular germ cell tumors, this population remains at high risk for subsequent solid tumors. Working with our medical oncology and radiation oncology partners, it is critically important that we incorporate our best estimates of long-term treatment related morbidity into management and survivorship discussions. While the last decade has witnessed increasing dissemination of surveillance, we must account for the potential incremental risk of additional chemotherapy in patients who have recurrence while under observation. However, perhaps more importantly we must educate our patients and the primary care community surrounding the observed risk of subsequent malignancy in this population to ensure that these men undergo necessary cancer screening long after completing testicular cancer treatment.

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