Improving the Survival of Patients With American Joint Committee on Cancer Stage III and IV Melanoma

Sloot et al reported that the survival of 610 patients with American Joint Committee on Cancer stage III to IV melanoma at the Moffitt Cancer Center in Tampa, Florida, including those with brain metastases, improved significantly since the introduction of immune checkpoint and BRAF/MEK-targeted therapies. From 2000 through 2008, the mean survival among these individuals was 7.5 months and was 8.5 months from 2009 through 2010; by 2011, the mean survival was 22.7 months.[1]

We have confirmed the results of the study by Sloot et al using the Surveillance, Epidemiology, and End Results (SEER) database. SEER data from population-based cancer registries include 28% of the US population.[2] We analyzed 24-month cause-specific survival data from 359,433 patients with American Joint Committee on Cancer stage III/IV melanoma from 2004 through 2012, the only years for which such data are available.

Cause-specific survival was as follows: 46.8% in 2004, 47.3% in 2005, 47.7% in 2006, 49.4% in 2007, 50.1% in 2008, 50.2% in 2009, 50.4% in 2010, 51.5% in 2011, and 50.8% in 2012. The chi-square test was statistically significant (2-sided $P < .001$), as was the test for linear-by-linear association (Mantel-Haenszel test for trend) (2-sided $P < .001$).

Compared with the dramatic jump in survival reported by Sloot et al,[1] the modestly improving survival we report from the SEER database may be due to the relatively slow adoption of targeted therapies. In major cancer centers, such as the Moffitt Cancer Center, patients may choose among many clinical trials to obtain new agents at little or no cost. However, outside these centers, these agents are far beyond the average patient's means.

Regardless of financial status, patients always are better served at an institution that is highly rated for the treatment of their condition. In fact, mortality is one of the bases on which cancer treatment facilities are rated, and the Moffitt Cancer Center is one of the top 10 cancer hospitals in the country, according to *US News & World Report* (https://health.usnews.com/best-hospitals/area/fl/moffitt-cancer-center-6391069/cancer).

Nevertheless, financial toxicity often confronts the patient with cancer.[3] Along with fatigue, nausea, and pain, oncologists now are faced with patients' subjective financial distress. One study indicated that patients with cancer are 2.7 times more likely to declare bankruptcy compared with individuals without cancer. Those who do declare bankruptcy are 79% more likely to die than those who do not.

Oncologists must accept the reality of financial toxicity as a distinct adverse effect of cancer treatment. We can only hope that in the years to come, a solution will be found for this difficult problem.

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