Rapid Eradication of a Bulky Melanoma Mass with One Dose of Immunotherapy

TO THE EDITOR: Both ipilimumab\(^1\) (anti–cytotoxic T-lymphocyte–associated antigen 4 monoclonal antibody) and nivolumab\(^2\) (anti–programmed death 1 monoclonal antibody) have been approved by...
the Food and Drug Administration for the treatment of metastatic melanoma on the basis of increased progression-free and overall survival. A phase 1 trial of a combination of ipilimumab and nivolumab showed that 53% of patients had at least 80% tumor shrinkage. We currently have treated 13 patients with melanoma with this combination as part of an expanded-access program (ClinicalTrials.gov number, NCT02186249), and we have observed a remarkable tumor response in 1 patient.

The patient is a 49-year-old woman who had a 4.2-mm ulcerated melanoma removed from her back 4 years ago. Two sentinel lymph nodes were negative for melanoma. The patient received adjuvant interferon alfa for 1 year. Approximately 1 year ago, positron-emission tomography revealed a new hypermetabolic subcutaneous nodule, which was excised and found to be melanoma with three BRAF mutations (L597Q, K601W, and S602T). Five months ago, she had another subcutaneous nodule removed, this time under her left breast. However, there was persistent disease, and when she presented to our institution, a large pedunculated necrotic mass under the left breast was evident (Fig. 1A and 1B). A computed tomographic (CT) scan also revealed left internal mammary lymphadenopathy, which was presumed to represent metastatic disease.

The patient received the first treatment of ipilimumab (3 mg per kilogram of body weight) and nivolumab (1 mg per kilogram), without substantial adverse effects. When she returned 3 weeks later for the next treatment, she reported that the tumor had “disappeared.” She was left with a cavity, as shown in Figure 1C; there was no evidence of tumor. Because of a rash, treatment was delayed for one cycle. Gentle scrapings of the cavity base were negative on cytologic examination. Six weeks after the first treatment, a repeat CT scan showed resolution of the chest-wall mass (Fig. 1D) and a decrease in size of the left internal mammary lymphadenopathy. The patient has resumed treatment.

This patient had a rapid eradication of a large tumor mass after a single treatment with combination immunotherapy. We wish to bring this to the attention of our colleagues, not only as an example of the potential of immunotherapy to mediate dramatic and rapid antitumor effects, but also to point out a potential safety concern. Such an antitumor effect occurring in a transmural metastasis in the small bowel or myocardium, common sites of metastatic melanoma, could have grave consequences. It is ironic that we are now concerned about the possibility of overly vigorous antimalanoma responses.

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