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Cancer Immunotherapy

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To the Editor: In his review of cancer immunology, Finn (June 19 issue)¹ states that the results of immunotherapy involving intravenous administration of tumor-specific autologous T cells (adoptive cell therapy) are “marginal,” whereas the results of trials of cancer vaccines are “encouraging.” We do not believe this conclusion accurately reflects the state of the field.

In 1994, we reported a 34% objective response rate among patients with metastatic melanoma who were treated with adoptive cell therapy.² These results have steadily improved. Adding lymphocyte-depleting chemotherapy before adoptive cell therapy increased the objective-response rate to 49%,³ and adding radiotherapy increased the objective-response rate to 72% (unpublished data). With the use of cancer vaccines, the objective-response rate ranges from 3 to 7%,⁴ and with the use of interleukin-2 or anti-cytotoxic T-lymphocyte-associated antigen 4, it ranges from 13 to 17%. Thus, adoptive cell therapy is the most effective immunotherapy in patients with meta-static melanoma.

We have seen no correlation between the bulk of disease and the likelihood of achieving an objective response. The recent report of regression of cancer when adoptive cell therapy was used with peripheral lymphocytes genetically engineered to express antitumor T-cell receptors holds promise for extending the use of adoptive cell therapy to patients with common epithelial cancers.⁵

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