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Prognostic significance of autoimmunity during treatment of melanoma with interferon.

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Source

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Abstract

BACKGROUND:

Immunotherapy for advanced melanoma induces serologic and clinical manifestations of autoimmunity. We assessed the prognostic significance of autoimmunity in patients with stage IIB, IIC, or III melanoma who were treated with high-dose adjuvant interferon alfa-2b.

METHODS:

We enrolled 200 patients in a substudy of a larger, ongoing randomized trial. Blood was obtained before the initiation of intravenous interferon therapy, after 1 month of therapy, and at 3, 6, 9, and 12 months. Serum was tested for antithyroid, antinuclear, anti-DNA, and anticardiolipin autoantibodies, and patients were examined for vitiligo.

RESULTS:

The median duration of follow-up was 45.6 months. Relapse occurred in 115 patients, and 82 patients died. The median relapse-free survival was 28.0 months, and the median overall survival was 58.7 months. Autoantibodies and clinical manifestations of autoimmunity were detected in 52 patients (26 percent). The median relapse-free survival was 16.0 months among patients without autoimmunity (108 of 148 had a relapse) and was not reached among patients with autoimmunity (7 of 52 had a relapse). The median survival was 37.6 months among patients without autoimmunity (80 of 148 died) and was not reached among patients with autoimmunity (2 of 52 died). In univariate and multivariate regression analyses, autoimmunity was an independent prognostic marker for improved relapse-free survival and overall survival ($P<0.001$).

CONCLUSIONS:

The appearance of autoantibodies or clinical manifestations of autoimmunity during treatment with interferon alfa-2b is associated with statistically significant improvements in relapse-free survival and overall survival in patients with melanoma.

Comment in

- Autoimmunity and immunotherapy for cancer. [N Engl J Med. 2006]