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Chimeric Antigen Receptor–Modified T Cells in CLL

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To the Editor:

Porter et al. describe the treatment of a patient with autologous T cells that were genetically modified to recognize the B-cell antigen CD19. This article confirms many findings of our December 2010 article,¹ which described a patient with advanced follicular lymphoma whom we treated with chemotherapy followed by an infusion of T cells expressing an anti-CD19 chimeric antigen receptor (CART19). A dramatic partial remission lasting 10 months was achieved in our patient. He was retreated on our protocol and was in an ongoing partial remission 26 months after the original treatment. In addition, both normal and malignant B-lineage cells were completely eradicated from the blood and bone marrow in our patient for 36 weeks. Similarly to the patient described by Porter and coworkers, hypogammaglobulinemia developed in our patient. We have treated a total of 11 patients in two different clinical trials of CART19. Adoptive transfer of T cells genetically modified receptors is a promising new approach for treating chemotherapy-resistant cancers.^{1–4}

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No potential conflict of interest relevant to this letter was reported.