Cell therapies for hematological malignancies: don't forget non-gene-modified t cells!

Melanie Grant, Catherine M. Bollard

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CELL THERAPIES FOR HEMATOLOGICAL MALIGNANCIES: DON'T FORGET NON-GENE-MODIFIED T CELLS!

Melanie Grant [1]; Catherine M. Bollard[1,2]

[1]Program for Cell Enhancement and Technologies for Immunotherapy, Children's National Health System, Washington, DC, USA

[2]Department of Microbiology, Immunology, and Tropical Medicine, The George Washington University, Washington, DC, USA

CORRESPONDENCE: Catherine M. Bollard

Program for Cell Enhancement and Technologies for Immunotherapy

111 Michigan Ave, NW, 5th Floor Main Suite 5225

Washington, DC 20816, USA

Tel.: +1-202-476-4776

Email: cbollard@cnmc.org

ABSTRACT

Cell therapy currently performs an important role in the treatment of patients with various hematological malignancies. The response to the cell therapy is regulated by multiple factors including the patient's immune system status, genetic profile, stage at diagnosis, age, and underlying disease. Cell therapy that does not require genetic manipulation can be mediated by donor lymphocyte infusion strategies, selective depletion in the post-transplant setting and the ex vivo expansion of antigen-specific T cells. For hematologic malignancies, cell therapy is contributing to enhanced clinical responses and overall survival and the immune response to cell therapy is predictive of response in multiple cancer types. In this review we summarize the available T cell therapeutics that do not rely on gene engineering for the treatment of patients with blood cancers.

KEYWORDS:

Adoptive T Cell Therapy, Tumor Associated Antigens, EBV, leukemia, lymphoma.