CAR T-Cell Therapy

Pediatric patients with relapsed and refractory acute lymphoblastic leukemia

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BACKGROUND: Immunotherapy provides a promising treatment option for children and adolescents with refractory or relapsed acute lymphoblastic leukemia (ALL).

OBJECTIVES: This article presents a hospital’s experience with providing chimeric antigen receptor (CAR) T-cell therapy, followed by a detailed discussion of the trajectory of treatment provided for pediatric patients and their families.

METHODS: Clinical experience in delivering care to pediatric patients undergoing CAR T-cell therapy is described. Care coordination, patient and family assessment and education, and post-CAR T-cell infusion monitoring are presented.

FINDINGS: Of 59 patients having been treated with CAR T-cell therapy at the authors’ institution, 93% had a complete response at day 28. The 12-month relapse-free survival rate is 55%. A multidisciplinary team of skilled clinicians is recommended to support patient and family needs throughout screening, treatment, and follow-up while coordinating care with the referring oncologist.

KEYWORDS
Immunotherapy; CART-cell therapy; CART-19; acute lymphoblastic leukemia

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