Long-Lasting Benefits of CAR-T Therapy for Hard-to-Treat Lymphoma

After three years of follow-up, most patients treated with Breyanzi remained in remission.

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- Lisocabtagene maraleucel (liso-cel)[Breyanzi], a CAR T cell therapy, achieved an overall response rate of 97% in the TRANSCEND FL study.
- Durable benefits persisted at three years and showed a favorable long-term safety profile with low rates of neurotoxicity and severe cytokine release syndrome.
- FDA granted accelerated approval in May 2024 for liso-cel in adults with relapsed or refractory follicular lymphoma.

ORLANDO — New three-year follow-up results from the TRANSCEND FL trial show that patients with relapsed or refractory follicular lymphoma can achieve durable, multi-year remission with chimeric antigen receptor (CAR) T cell therapy, even after prior treatments have failed, according to researchers at The University of Texas MD Anderson Cancer Center.

The trial findings with lisocabtagene maraleucel (liso-cel) were presented today by Sairah Ahmed, MD, associate professor of Lymphoma & Myeloma, at the 67th American Society of Hematology (ASH) Annual Meeting and Exposition (Abstract 467). All ASH content from MD Anderson can be found at MDAnderson.org/ASH.

“We are seeing unprecedented response rates and durable remissions in patients whose follicular lymphoma had previously resisted multiple therapies,” said Ahmed, the trial’s principal investigator. “These three-year results highlight not only the long-lasting benefit of CAR T cell therapy, but also its favorable safety profile, offering real hope for patients facing this challenging disease. MD Anderson is a participating site of the TRANSCEND trial.

What is the TRANSCEND FL trial and what are the key findings?

Follicular lymphoma is a B-cell malignancy characterized by slow progression but a high likelihood of disease recurrence. Each relapse becomes more challenging to treat, while remission periods get shorter.

The multicenter TRANSCEND FL evaluated whether a single infusion of liso-cel, a type of CAR T cell therapy, could produce durable remissions and favorable safety profiles in patients whose follicular lymphoma had relapsed or was refractory after multiple prior therapies.

In 107 heavily pretreated patients, liso-cel produced remarkably high response rates, with 97% of patients responding to treatment and 94% achieving complete remission. After three years of follow-up, most patients remained in remission.

Median duration of response, progression-free survival and overall survival had not yet been reached at a median follow-up of 41.5 months, demonstrating few patients had experienced relapse or disease progression, an encouraging sign that the therapy's benefit is ongoing.

What was the safety profile of liso-cel for patients with follicular lymphoma?

The long-term safety profile of liso-cel remained consistent and manageable. Severe cytokine release syndrome, a common side effect of CAR T cell therapy, occurred in 1% of patients, while severe neurological events occurred in 2% of patients. These are relatively low rates compared to other CAR T cell therapies.

Although some patients developed infections or reduced blood counts over time, these effects were anticipated, and no new or unexpected safety issues emerged during the extended follow-up.

How do these results affect patients with follicular lymphoma?

The Food and Drug Administration's accelerated approval of liso-cel in May 2024 allows this therapy to be used for certain patients with follicular lymphoma, providing a new option for individuals who previously had few effective treatments available.

This study is important because it offers three years of follow-up data, one of the longest reported for CAR T cell therapy in follicular lymphoma. These results support the potential for using cell therapies earlier in the treatment course for certain patients.

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