Some patients with small-cell lung cancer can benefit from PARP inhibitor with immune checkpoint blockade

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Among patients with extensive stage small-cell lung cancer (SCLC) that is positive for expression of the Schlafen-11 gene (SLFN11), those who

received maintenance atezolizumab immunotherapy plus the PARP inhibitor talazoparib had significantly longer progression-free survival (PFS) times than those who received atezolizumab alone (median PFS 4.2 months versus 2.8 months).

These results from the phase II S1929 trial conducted by the SWOG Cancer Research Network, a clinical trials group, was reported in an oral presentation at the 2023 meeting of the American Society for Clinical Oncology in Chicago on June 3.

The work was led and will be presented by Nagla Abdel Karim, MD, a SWOG investigator who directs the Early Therapeutics Program at the Inova Schar Cancer Institute and the University of Virginia.

"The results of S1929 demonstrate improvement in progression-free survival in patients with SLFN11-expressing small-cell lung cancer," Karim said. "This is a groundbreaking milestone in building future studies for small-cell lung cancer towards a personalized approach to therapy. Progression-free survival is of great clinical significance, especially in this aggressive disease."

The S1929 study randomized 106 patients who received front-line chemotherapy with atezolizumab and whose tumors tested positive for SLFN11 expression. All randomized patients were included in the analysis. Progression-free survival was the primary endpoint in the trial. Patients on the talazoparib arm had a risk of disease progression or death that was reduced by 30% (PFS hazard ratio [80% CI]: 0.70 [0.52–0.94]; p=0.056) compared to that for patients on the atezolizumab-only arm.

Secondary endpoints included overall survival. Median overall survival times were similar between the two arms (9.4 months in the investigative arm versus 8.5 months in the control arm).

Patients on the combination therapy did experience significantly more hematological adverse events (blood-based side effects) than those on the atezolizumab-only therapy (5% versus 4%), although this increased rate of hematological toxicity was expected. Non-hematological adverse event rates were similar between the two arms (15% versus 13%, respectively).

The authors note that the S1929 study results also demonstrate, for the first time, the feasibility of conducting biomarker-selected trials in patients with SCLC, which could pave the way for future trials that evaluate new therapies for the disease in selected patient populations.

"Managing small-cell lung cancer based on predictive biomarkers is now seen as a possibility that will change clinical practice," Karim said.

More information: SWOG S1929: Phase II Randomized Study of Maintenance Atezolizumab (A) Versus Atezolizumab + Talazoparib (AT) in Patients with SLFN11 Positive Extensive Stage Small Cell Lung Cancer (ES-SCLC). meetings.asco.org/abstracts-presentations/218832

Provided by SWOG Cancer Research Network

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