Trial shows positive results for lung cancer patients taking chemotherapy plus durvalumab and tremelimumab

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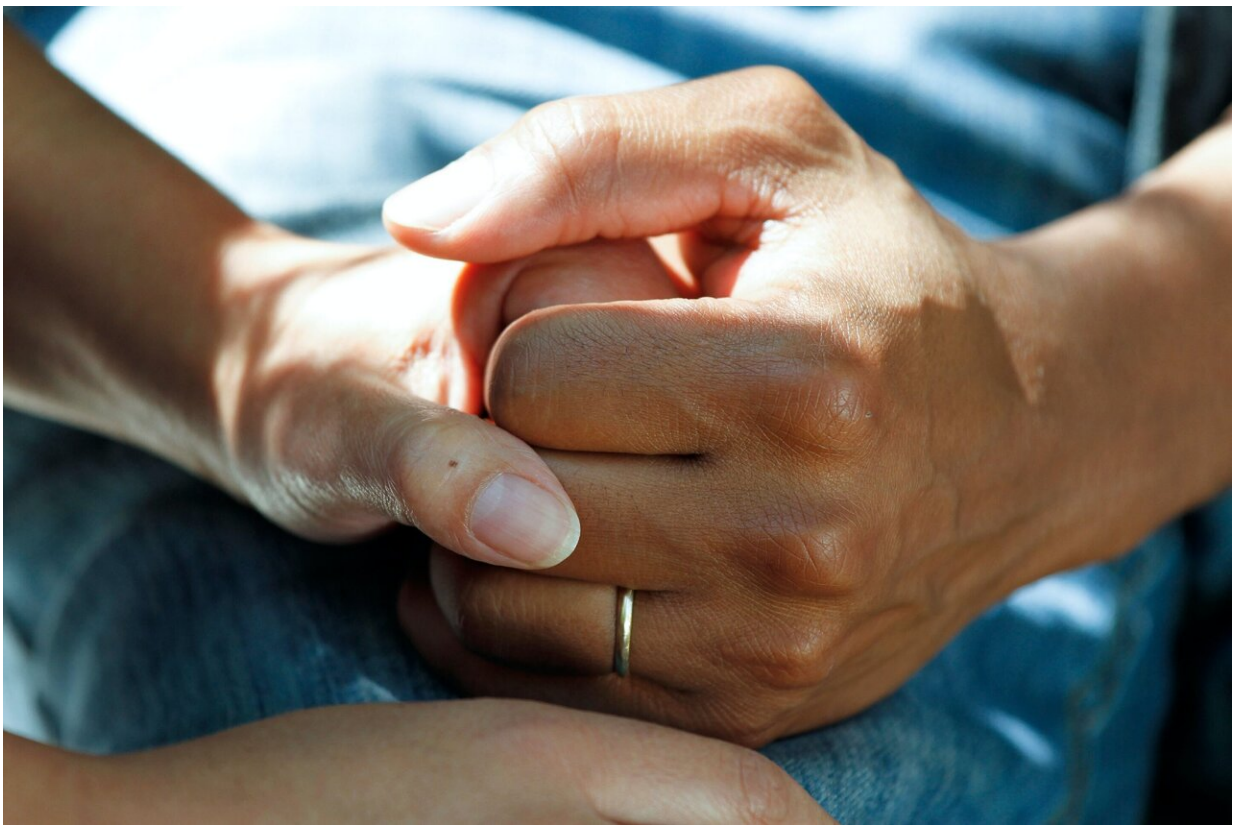

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Patients with metastatic non-small cell lung cancer (mNSCLC) who received a combined regimen of durvalumab, tremelimumab, and

chemotherapy experienced a statistically significant improvement in progression-free survival and overall survival compared to patients who received just chemotherapy. Progression-free survival was significantly improved for patients receiving durvalumab plus chemotherapy compared with chemotherapy alone, with a positive trend for overall survival that did not reach statistical significance.

The results of the phase III trial of POSEIDON were presented during the Presidential Symposium Plenary Session at the IASLC 2021 World Conference on Lung Cancer.

Immunotherapies targeting the PD-1/PD-L1 pathway have transformed the treatment of mNSCLC as monotherapy and in combination with chemotherapy, with emerging evidence that adding anti-CTLA-4 therapy to anti-PD1/PD-L1 therapy may further prolong survival outcomes and long-term benefits to patients, as well.

Dr. Melissa Johnson and colleagues at 153 cancer centers around the world enrolled 1,013 patients to participate in the POSEIDON trial. POSEIDON is a randomized, open label, global phase III study evaluating durvalumab with and without tremelimumab in combination with chemotherapy regimens as first-line treatment for squamous or non-squamous mNSCLC. Dr. Johnson is director of the Lung Cancer Research program at Sarah Cannon Research Institute and medical oncologist with Tennessee Oncology, PLLC in Nashville, Tenn., U.S..

POSEIDON randomly assigned patients with treatment-naïve, EGFR/ALK wild-type mNSCLC (1:1:1) to receive one of three regimens:

1. Durvalumab (1,500 mg) and chemotherapy every three weeks for four cycles followed by durvalumab (1,500 mg) every four weeks until progression;

2. Durvalumab (1,500 mg) with tremelimumab (75 mg) concurrently with chemotherapy every three weeks for up to four cycles, followed by durvalumab (1,500 mg) every four weeks until progression, with one additional dose of tremelimumab after the fourth dose of chemotherapy; or
3. Chemotherapy every three week for up to six cycles.

The chemotherapy options included platinum and pemetrexed (maintenance pemetrexed permitted) for patients with non-squamous histology, platinum and gemcitabine for patients with squamous histology, or carboplatin and nab-paclitaxel for patients with either histology.

Random assignment was stratified by PD-L1 expression on tumor cells (TC greater to or equal to 50% versus less than 50%), disease stage (IVA vs IVB) and histology (squamous versus non-squamous). Of the 1,013 patients randomly assigned, 28.8% had PD-L1 TC ≥ 50%, 49.6% had stage IVB disease, and 36.9% had squamous histology. Distribution of chemotherapy regimens across arms was generally balanced.

Dr. Johnson reported that durvalumab combined with tremelimumab and chemotherapy reduced the risk of death by 23% versus chemotherapy alone (based on a HR of 0.77; 95% CI 0.65-0.92; p = 0.00304), with a median OS of 14.0 months versus 11.7 months for chemotherapy alone; and a hazard ratio for progression-free survival of 0.72 (0.60-0.86; p = 0.0003), with a median PFS of 6.2 months versus 4.8 months for chemotherapy alone.

The durvalumab plus chemotherapy arm showed a hazard ratio for PFS of 0.74 (0.62-0.89; p = 0.0009), with a median PFS of 5.5 months versus 4.8 months for chemotherapy alone. A positive trend of OS did not reach statistical significance.

"The POSEIDON trial showed that patients who received durvalumab and tremelimumab and chemotherapy experienced statistically significant and clinically meaningful improvements in both progression-free survival and overall survival compared to patients on chemotherapy alone," Dr. Johnson reported. "Durvalumab and tremelimumab and chemotherapy represents a potential new first-line treatment option for metastatic non-small cell lung cancer."

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