

LUNG CANCER - IMMUNOTHERAPY

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Lung cancer is still the second most common cancer in both the genders, and the first most common cancer that causes death. The number of new cases of lung and bronchus cancer was 55.8 per 100,000 men and women per year. The number of deaths was 44.7 per 100,000 men and women per year. These rates are age-adjusted and based on 2010-2014 cases and deaths.

There is definitely good news though for lung cancer patients. Incidence of lung cancer and the diagnosis at late stage are showing decreasing trends, and patients who get treatment have shown rising/improving trends.

I would like to discuss one more treatment option that includes immunotherapy. Immunotherapy is one of the newest available therapy options for patient with lung cancer, especially, NSCLC (non-small cell lung cancer).

Recently, there has been positive news about one such combination for a type of non-small cell lung cancer called non-squamous cell. Study Keynote-021 is a randomized, study, in which patients were enrolled at 26 medical centers in the USA and Taiwan. Patients were chemotherapy naïve were chemotherapy, stage IIIB or IV, non-squamous NSCLC without targetable EGFR or ALK genetic aberrations who were randomly assigned to Carboplatin and pemetrexed with or without pembrolizumab (Immunotherapy). The primary endpoint was an objective response, defined as the percentage of patients with radiologically confirmed complete or partial response. Safety of the combination was also assessed.

Among the 123 patients enrolled in the study, 60 were randomly assigned to the pembrolizumab (Immunotherapy) plus chemotherapy group and 63 to the chemotherapy alone group. 33 (55%; 95% CI 42-68) of 60 patients in the pembrolizumab plus chemotherapy group achieved an objective response compared with 18 (29%; 18-41) of 63 patients in the chemotherapy alone group (estimated treatment difference 26% [95% CI 9-42%]; $p=0.0016$). Thus. The objective response rate achieved is statistically significant.

The most common worse treatment-related adverse events in the pembrolizumab plus chemotherapy group were anemia and decreased neutrophil count, and these can be very well monitored by blood counts with treatment dose adjustments if needed.

The above study provides evidence for benefit of combination of chemotherapy + Immunotherapy in first line treatment of advances Non-Squamous NSCLC patients. This combination is FDA approved as first-line treatment for patients with metastatic non-squamous NSCLC. (This indication happened under accelerated approval.)

References:

SEER data base

<https://www.ncib.nlm.nih.gov/pubmed>

<https://www.ncbi.nlm.nih.gov/pubmed/27745820>

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