

Terence Fletcher, born 1959-09-03 (ID: SYN099)

Diagnosis: Stage IV Non-Small Cell Lung Cancer (NSCLC), wild-type EGFR and ALK, high PD-L1 expression (TPS 95%, CPS 100, IC 10) diagnosed June 7, 2021

Clinical Summary: Male patient initially presented with progressive shortness of breath, chronic cough productive of sputum with intermittent hemoptysis, persistent fatigue, and significant unintentional weight loss (approximately 25 lbs over three months). Patient has an extensive smoking history (45 pack-years), ceased smoking approximately 5 years prior to diagnosis. Known history of chronic obstructive pulmonary disease (COPD), managed with inhaled corticosteroids and bronchodilators. Initial imaging via chest CT revealed extensive bilateral pulmonary infiltrates indicative of advanced lung malignancy without extrapulmonary metastases. Subsequent PET-CT confirmed highly metabolic bilateral lung lesions with a maximum SUV of 10.3 in the largest lesion (4.2 cm, right lower lobe). Histological analysis from bronchoscopy-guided biopsy confirmed squamous cell carcinoma, and genomic testing found no actionable mutations. Immunohistochemistry demonstrated robust PD-L1 expression.

Treatment Course: Initiated Pembrolizumab monotherapy (200 mg intravenously every three weeks) as first-line treatment on June 29, 2021. Patient exhibited excellent tolerability with minimal side effects, limited primarily to mild fatigue. Substantial symptomatic improvement was noted within the initial three months of therapy, particularly in respiratory function and reduction in hemoptysis episodes. Interim follow-up imaging at six months demonstrated partial radiographic response, notably a 40% reduction in size of primary pulmonary lesions and marked improvement in pulmonary infiltrates.

Current Status: Patient remains clinically stable, experiencing sustained symptomatic relief and improved respiratory function. Recent follow-up imaging at two-year mark confirmed ongoing partial response with stable disease and no evidence of new metastatic involvement. Pulmonary function tests have demonstrated stable or slightly improved respiratory metrics despite underlying COPD. Regular laboratory testing has remained stable, with no significant treatment-related abnormalities.

Follow-up Plan: Continue Pembrolizumab monotherapy with regular surveillance including chest imaging (CT or PET-CT) every four months, and pulmonary function testing biannually. Continued assessment for any emerging toxicity or immunotherapy-related adverse events with prompt management as necessary. Discuss potential integration of localized treatment modalities (radiation therapy or surgery) should limited disease progression occur.

Chicago, June 25, 2023