River City Oncology Specialists – Medical Oncology Progress Note

DATE OF ENCOUNTER: November 01, 2022
PROVIDER: Vivian Wells, MD

REASON FOR VISIT: Follow-up visit to discuss results of first restaging scans after completing 4 cycles of induction Carboplatin/Pemetrexed/Pembrolizumab for Stage IV Lung Adenocarcinoma. Assess tolerance and plan for maintenance therapy vs change.

HISTORY OF PRESENT ILLNESS:
Mr. Davis is a 66-year-old gentleman diagnosed with Stage IV Lung Adenocarcinoma on July 7, 2022. He presented with several months of persistent cough, progressive dyspnea on exertion, and ~10 lb weight loss. Staging CT Chest/Abdomen/Pelvis revealed a 4.2 cm mass in the left lower lobe with associated bulky mediastinal and hilar lymphadenopathy, multiple bilateral pulmonary nodules up to 1.5 cm, and several hypodense liver lesions consistent with metastases (largest 2.8 cm in segment IVa). Brain MRI was negative.

- **Initial Pathology (CT-Guided LLL Biopsy, 07/11/2022):** Poorly differentiated Adenocarcinoma.
    - **Histology:** Tumor comprised sheets and nests of large, pleomorphic cells with vesicular nuclei, prominent nucleoli, and moderate amounts of eosinophilic cytoplasm. Gland formation was rare and poorly formed (<10%). Significant necrosis and brisk mitotic activity were present. Extensive lymphovascular invasion noted.
    - **IHC:** Tumor cells strongly positive for TTF-1; Patchy positive for Napsin-A; Strongly positive for CK7; Negative for P40, CK5/6, Synaptophysin, Chromogranin. Consistent with poorly differentiated lung adenocarcinoma.
- **Molecular/PD-L1:** NGS panel **Wild-Type** (EGFR/ALK/ROS1/BRAF/KRAS/MET/RET/NTRK neg). PD-L1 IHC (22C3): **TPS 0%, CPS <5, IC Score 0**.

First-Line Treatment Course:
Based on non-squamous histology and PD-L1 negative status, he started first-line **Carboplatin (AUC 5) + Pemetrexed (500 mg/m2) + Pembrolizumab (200 mg) IV q3 weeks on July 29, 2022.** He completed 4 cycles of induction therapy, with the last cycle administered on October 14, 2022.

- **Tolerability:** Tolerated induction chemotherapy relatively well. Experienced Grade 2 fatigue (most significant week after infusion), Grade 1 nausea (well-controlled with PRN Ondansetron), Grade 1 anemia (Hgb nadir 10.8 g/dL), and Grade 1 peripheral sensory neuropathy (mild tingling fingers/toes, resolved after stopping Carboplatin). No significant irAEs noted. Compliant with Folic Acid/B12.

Post-Induction Restaging (Performed prior to planned C5/Maintenance Start):

- **Imaging (CT Chest/Abdomen/Pelvis w/ Contrast, Oct 28, 2022):** Compared to baseline CT July 2022.

    - *Chest:* Partial response. Primary LLL mass decreased significantly to 2.1 cm (from 4.2 cm). Mediastinal/hilar lymphadenopathy markedly improved, nodes now borderline/normal size. Bilateral pulmonary nodules decreased in size and number (largest now 0.8 cm).
    - *Abdomen:* Partial response. Hepatic metastases decreased significantly in size (largest lesion segment IVa now 1.3 cm vs 2.8 cm). No new lesions identified.
    - *RECIST 1.1 Assessment:* Overall Partial Response (-48% change in sum of target lesions).

SUBJECTIVE (Today - Assessment visit prior to planned Maintenance C1):
Patient presents today feeling considerably better than at diagnosis. Cough is minimal. Dyspnea on exertion markedly improved (can walk several blocks now vs difficulty with stairs initially). Fatigue is present but mild (Grade 1), much improved since completing Carboplatin. Appetite good, weight stable over past month. Denies nausea, neuropathy symptoms currently. No symptoms suggesting irAEs. Eager to continue treatment. ECOG Performance Status 1.

OBJECTIVE:

- *Vitals:* T 36.8, BP 130/80, HR 75, SpO2 97% RA. Wt stable. ECOG PS 1.
- *Exam:* Well-appearing male in NAD. Lungs improved air entry bilaterally, still few faint crackles L base. Cor RRR. Abd soft, NT/ND. No edema.
- *Labs (Today):* CBC: Hgb 11.5, WBC 6.0 (ANC 3.8), Plt 225. CMP: Cr 1.0, LFTs WNL. TSH WNL.

ASSESSMENT:

1. **Stage IV Lung Adenocarcinoma (WT, PD-L1 Negative):** Patient has achieved a good Partial Response following 4 cycles of induction Carboplatin/Pemetrexed/Pembrolizumab therapy. He is clinically improved with good performance status (ECOG 1) and has tolerated induction well overall. Suitable to transition to maintenance therapy.

PLAN:

1. **Discussed Scan Results:** Reviewed the positive scan results showing significant tumor shrinkage with the patient, who was very encouraged.
2. **Transition to Maintenance Therapy:**
    - **Regimen: Pemetrexed (500 mg/m2) + Pembrolizumab (200 mg) IV every 3 weeks.**
    - **Schedule:** Plan to start Cycle 5 Day 1 (first maintenance cycle) today.
    - **Duration:** Continue maintenance therapy until disease progression or unacceptable toxicity. Typically re-evaluate Pembrolizumab continuation around the 2-year mark if still stable/responding.
3. **Supportive Care:**
    - Continue **Folic Acid 1 mg PO Daily.**
    - Continue **Vitamin B12 1000 mcg IM every 9 weeks** (due again before Cycle 7).

    - Continue PRN anti-emetics (Ondansetron/Prochlorperazine) as needed (less nausea expected without Carboplatin).
    - Continue monitoring for irAEs (skin, GI, endocrine, pulmonary etc). Patient education reinforced.
4. **Monitoring:** Labs (CBC, CMP) prior to each maintenance cycle. Restaging CT Chest/Abdomen/Pelvis every 2-3 months (next scan due ~Jan/Feb 2023). Brain MRI surveillance q6 months.
5. **Initiate Maintenance C1 (Cycle 5 Day 1) Today:** Patient consents and is fit to proceed. Orders placed for Pemetrexed + Pembrolizumab infusion with standard pre-meds (Dexamethasone, Ondansetron).

_____ M.D.
Vivian Wells, MD (Electronically Signed)

PATIENT ID: SYN185
PATIENT NAME: Davis, Samuel George
DATE OF BIRTH: July 27, 1957