**Patient:** Robert Henderson (DOB 1956-02-15)  
**Medical Record Number:** 359872  
**Date of Admission:** 2024-03-25  
**Date of Discharge:** 2024-03-29  
**Admitting Physician:** Dr. V. Rodriguez (Medical Oncology)  
**Consulting Physicians:** Dr. K. Thompson (Pulmonology), Dr. B. Isaacs (Radiation Oncology)

**Discharge Diagnosis: Extensive-Stage Small Cell Lung Cancer (ES-SCLC), Recurrent Disease, Status-Post Cycle 2 of Second-Line Topotecan**

**1. Detailed Oncological Diagnosis:**

Primary Diagnosis: Small Cell Lung Cancer (SCLC), Extensive-Stage.  
Date of Initial Diagnosis: August 15, 2023 (confirmed by bronchoscopic biopsy).

Histology:

* Initial bronchoscopic biopsy (August 2023): Small cell carcinoma with typical neuroendocrine morphology.
* Immunohistochemistry: Positive for synaptophysin, chromogranin A, CD56, and TTF-1. Ki-67 proliferation index >80%.

Molecular/Genomic:

* NGS panel: TP53 mutation (p.R175H), RB1 deletion.
* No actionable driver mutations identified.
* PD-L1 expression: 5% (low).

Initial Staging (August 2023):

* TNM (8th edition): cT4N2M1c, Stage IV (Extensive-Stage).
* Primary tumor: 4.8 cm RUL mass with extension into mediastinum.
* Metastatic sites: Multiple bilateral pulmonary nodules, mediastinal and hilar lymphadenopathy, liver metastases (segments II, V, VII), and bone metastases (T4, T10, left iliac wing).

Initial Imaging:

* CT Chest/Abdomen/Pelvis (August 2023): 4.8 cm RUL mass with extensive mediastinal involvement, multiple bilateral pulmonary nodules, mediastinal lymphadenopathy, and three hypodense hepatic lesions.
* PET/CT (August 2023): Hypermetabolic primary lung mass (SUV 15.2), pulmonary nodules (SUV 4.5-8.9), mediastinal nodes (SUV 10.5), liver lesions (SUV 9.4-11.2), and bone lesions (SUV 7.2-9.8).
* Brain MRI (August 2023): Negative for metastatic disease.

**2. Current Oncological Treatment:**

Regimen**:** Single-agent Topotecan (second-line therapy)

* Topotecan 1.5 mg/m² IV on Days 1-5 of a 21-day cycle.
* Current cycle: Cycle 2 (Days 1-5 completed during this admission, March 25-29, 2024).

Dose Modifications:

* None for current cycle. First cycle had been dose-reduced to 1.25 mg/m² due to borderline performance status.
* Restored to full dose (1.5 mg/m²) for current cycle based on adequate tolerance of cycle 1.

Supportive Medications:

* Ondansetron 8 mg IV 30 minutes prior to each topotecan dose, then 8 mg PO Q8H for 24 hours.
* Dexamethasone 8 mg IV prior to topotecan on Day 1 only.
* Filgrastim (G-CSF) 480 mcg SC daily started on Day 6 (March 30) for 5-7 days, to continue as outpatient.
* IV hydration with normal saline at 100 ml/hour during treatment days.

**3. History of Oncological Treatment:**

First-Line Therapy (September 2023 - January 2024):

* Regimen: Carboplatin + Etoposide + Atezolizumab
  + Carboplatin AUC 5 IV Day 1
  + Etoposide 100 mg/m² IV Days 1-3
  + Atezolizumab 1200 mg IV Day 1
  + 21-day cycles
* Completed 4 cycles of Carboplatin + Etoposide + Atezolizumab (September - November 2023)
* Followed by 2 cycles of maintenance Atezolizumab (December 2023 - January 2024)
* Best response: Partial response (45% reduction in target lesions)
* PFS: 4.5 months
* Disease progression documented on follow-up CT scan (January 15, 2024)

Second-Line Therapy:

* Regimen: Single-agent Topotecan
  + Cycle 1: March 4-8, 2024 (dose-reduced to 1.25 mg/m² due to ECOG PS 2-3)
  + Cycle 2: March 25-29, 2024 (current admission, dose escalated to standard 1.5 mg/m²)
* Complications from Cycle 1: Grade 2 neutropenia despite G-CSF, Grade 1 anemia

Radiation Therapy:

* Palliative radiation to T10 vertebral metastasis: 20 Gy in 5 fractions (completed December 2023) for pain control.

**4. Comorbidities:**

* Chronic Obstructive Pulmonary Disease (GOLD Stage 2, diagnosed 2016).
* 40 pack-year smoking history (quit at diagnosis, August 2023).
* Hypertension (diagnosed 2017, well-controlled).
* Paroxysmal Atrial Fibrillation (diagnosed 2020, on apixaban).
* History of Pulmonary Embolism (2021, completed 6-month anticoagulation course, now recurrent risk with malignancy).
* Moderate Chronic Kidney Disease (Stage 3a, eGFR 50-55 mL/min/1.73m²).
* Gastroesophageal Reflux Disease with Barrett's Esophagus (diagnosed 2019).
* Major Depressive Disorder (well-managed with sertraline).
* Hypothyroidism (on levothyroxine).
* Bilateral Sensorineural Hearing Loss (moderate, uses hearing aids).
* History of Alcohol Use Disorder (in sustained remission since 2018).

**5. Physical Exam at Admission:**

General: 68-year-old male appearing older than stated age, moderate cachexia, in no acute distress.

Vitals: BP 132/76 mmHg, HR 88 bpm regular, RR 20/min, Temp 36.8°C, SpO2 94% on room air, Weight 68 kg (baseline 75 kg 6 months ago).

HEENT: Normocephalic. Dry mucous membranes. No icterus. No cervical lymphadenopathy.

Cardiovascular: Regular rate and rhythm. No murmurs, rubs, or gallops.

Respiratory: Decreased breath sounds in right base with dullness to percussion, consistent with known small pleural effusion. Scattered wheezes bilaterally. No crackles.

Abdomen: Soft, mild RUQ tenderness, no rebound or guarding. Liver edge palpable 2 cm below costal margin, smooth. No splenomegaly.

Extremities: Trace bilateral lower extremity edema. No calf tenderness.

Neurological: Alert and oriented x3. Cranial nerves intact. Motor strength 5/5 throughout. Sensation intact. Mild bilateral tremor noted in hands (essential tremor, long-standing).

Skin: No rashes. PICC line in place in left upper arm with site clean, dry, and intact.

Performance Status: ECOG 1-2 (ambulatory, capable of self-care, unable to work, up and about >50% of waking hours).

**6. Epicrisis (Hospital Course Summary):**

Mr. Henderson is a 68-year-old male with extensive-stage small cell lung cancer with progression after first-line platinum-etoposide-immunotherapy, admitted for cycle 2 of second-line topotecan.

The patient received full-dose topotecan (1.5 mg/m² IV) daily from March 25-29. Unlike cycle 1, where the dose was reduced to 1.25 mg/m² due to marginal performance status, the full standard dose was administered this cycle as the patient had improved clinically with better pain control and nutritional status.

The patient tolerated the chemotherapy relatively well with Grade 1 nausea adequately controlled with scheduled antiemetics. He experienced mild fatigue that worsened progressively during the five days of treatment but remained ambulatory. No mucositis or diarrhea was observed during the admission.

Pre-chemotherapy lab values showed mild anemia (Hgb 10.5 g/dL) and adequate white blood cell and platelet counts. Liver and kidney function remained stable throughout the hospitalization. The patient received daily IV hydration during chemotherapy administration to maintain adequate renal perfusion.

A portable chest X-ray on Day 3 showed stable right-sided pleural effusion with no evidence of pneumonia. Oxygen saturation remained at baseline (93-94%) throughout the admission without supplemental oxygen requirement.

Pain control was maintained with his home regimen of extended-release morphine and breakthrough oxycodone. Renal function was monitored closely given his chronic kidney disease, with careful attention to hydration status and medication dosing. His thyroid function tests were reviewed and levothyroxine dose was continued unchanged. The patient's apixaban was held for 24 hours prior to PICC line placement and resumed thereafter without complications. His sertraline was continued throughout admission with ongoing monitoring for mood symptoms.

Filgrastim (G-CSF) was prescribed to begin on Day 6 (post-discharge) to mitigate the risk of prolonged neutropenia based on the grade 2 neutropenia observed after cycle 1. The patient and his wife were provided with thorough education on filgrastim self-administration, neutropenic precautions, and signs/symptoms requiring urgent medical attention.

The patient completed all 5 days of treatment and was discharged in stable condition, with plans for follow-up labs in 7-10 days to assess nadir counts and clinical assessment in 2 weeks to evaluate for cycle 3.

**7. Medication at Discharge:**

* Filgrastim (Neupogen) 480 mcg SC daily for 5-7 days starting March 30, 2024.
* Ondansetron 8 mg PO Q8H PRN nausea (dispensed #15).
* Prochlorperazine 10 mg PO Q6H PRN breakthrough nausea (dispensed #10).
* Morphine sulfate ER 30 mg PO BID for cancer-related pain.
* Oxycodone 5 mg PO Q4H PRN breakthrough pain (dispensed #60).
* Senna-docusate 2 tabs PO BID PRN constipation.
* Metoclopramide 10 mg PO QID PRN early satiety/bloating.
* Lisinopril 10 mg PO daily (for hypertension).
* Apixaban 5 mg PO BID (for atrial fibrillation – pause if platelets < 50 G/l).
* Levothyroxine 112 mcg PO daily (for hypothyroidism).
* Sertraline 100 mg PO daily (for depression).
* Pantoprazole 40 mg PO daily (for GERD/Barrett's).
* Furosemide 20 mg PO daily (for fluid management/CKD).
* Tiotropium 18 mcg inhaled daily (for COPD).
* Albuterol/ipratropium inhaler 2 puffs QID PRN shortness of breath.
* Propranolol 10 mg PO BID (for essential tremor).
* Vitamin D 2,000 IU daily (for vitamin D deficiency).
* Folic acid 1 mg daily (supplementation for CKD).

**8. Further Procedure / Follow-up:**

Oncology Follow-up:

* Complete blood count with differential in 7-10 days (April 5-8, 2024) to assess nadir.
* Clinical follow-up with Dr. V. Rodriguez in 2 weeks (April 12, 2024) to assess toxicity recovery and determine fitness for cycle 3.
* Laboratory evaluation (CBC, CMP, LDH) prior to next clinic visit.

Imaging**:**

* Restaging CT Chest/Abdomen/Pelvis after completion of 4 cycles (planned for late May/early June 2024) or sooner if clinical deterioration.
* Brain MRI scheduled for surveillance on April 15, 2024.

Treatment Plan:

* Continue topotecan monotherapy for up to 6 cycles in the absence of disease progression or unacceptable toxicity.

Symptom Management:

* Pulmonology follow-up with Dr. K. Thompson in 3 weeks (April 19, 2024) to reassess pleural effusion and pulmonary status.
* Palliative Care consultation scheduled for April 5, 2024, for holistic symptom management and advance care planning.

Patient Education:

* Neutropenic precautions reviewed, including immediate notification for fever ≥38.0°C.
* Instructed on self-administration of filgrastim and potential side effects.
* Dietary recommendations provided to maintain nutrition during periods of nausea/decreased appetite.
* Smoking cessation reinforced (currently 8 months abstinent).

**9. Lab Values (Excerpt):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Admission (3/25/2024)** | **Discharge (3/29/2024)** | **Units** | **Reference Range** |
| WBC | 5.2 | 4.8 | x10^9/L | 4.0-11.0 |
| ANC | 3.5 | 3.1 | x10^9/L | 2.0-7.0 |
| Hemoglobin | 10.5 | 10.2 | g/dL | 13.5-17.5 (M) |
| Platelets | 165 | 142 | x10^9/L | 150-400 |
| Creatinine | 1.4 | 1.5 | mg/dL | 0.7-1.3 |
| eGFR | 52 | 50 | mL/min/1.73m² | >60 |
| BUN | 28 | 30 | mg/dL | 7-20 |
| Total Bilirubin | 0.8 | 0.9 | mg/dL | 0.3-1.2 |
| AST | 45 | 48 | U/L | 10-35 |
| ALT | 42 | 45 | U/L | 10-35 |
| Alkaline Phosphatase | 185 | 190 | U/L | 40-150 |
| LDH | 290 | 295 | U/L | 135-225 |
| Albumin | 3.4 | 3.3 | g/dL | 3.5-5.0 |
| Sodium | 138 | 137 | mEq/L | 135-145 |
| Potassium | 4.2 | 4.0 | mEq/L | 3.5-5.0 |
| Glucose | 105 | 110 | mg/dL | 70-99 |
| TSH | 3.8 | (Not Repeated) | mIU/L | 0.4-4.0 |
| Free T4 | 1.2 | (Not Repeated) | ng/dL | 0.8-1.8 |
| CRP | 8.5 | 10.2 | mg/L | < 5 |

Electronically Signed By:  
Dr. V. Rodriguez (Medical Oncology)  
Date/Time: 2024-03-29 13:45

Dr. K. Thompson (Pulmonology)  
Date/Time: 2024-03-29 12:30