Admission Date: 2023-09-15
Discharge Date (Date of Death): 2023-09-21
Discharge Disposition: Deceased

Attending Physician: Lena Hanson, MD (Hospitalist Service)
Consulting Services During Admission: Palliative Care (Ranjit Davies, MD), Medical Oncology (Sunil Patel, MD - for goals of care discussion)

Principal Diagnosis: Respiratory Failure (Acute on Chronic Hypercapnic)

Secondary Diagnoses:

1. Metastatic Non-Small Cell Lung Cancer (NSCLC), Adenocarcinoma. Stage IVB (pT3N2M1c - LUL primary, Brain, Lung, Mediastinal Node mets). Diagnosed 2021-07-07.
    - KRAS G12C Mutation positive.
    - PD-L1 Tumor Proportion Score (TPS): 25% (Agilent Dako 22C3).
    - Carboplatin/Pemetrexed/Pembrolizumab 2021-07-30 until 2022-09-03 (PD)
    - Progressed after second-line Sotorasib (KRAS G12C inhibitor) trial (duration ~4 months).
    - Transitioned to Best Supportive Care / Hospice ~December 2022.
2. Lymphangitic Carcinomatosis.
3. Malignant Brain Metastases (multiple, previously treated with SRS).
4. Type 2 Diabetes Mellitus (poorly controlled, on insulin).
5. Coronary Artery Disease, s/p PCI to LAD (2015), on Aspirin/Clopidogrel.
6. History of Deep Vein Thrombosis (LLE), on Enoxaparin (prophylactic dose recently due to Palliative status).
7. Cancer-Related Cachexia.
8. Chronic Kidney Disease Stage III (baseline Cr ~1.4 mg/dL). Acute Kidney Injury on admission.
9. History of Heavy Tobacco Use (60 pack-years, quit 2021).

Reason for Admission: Acute worsening dyspnea, hypoxia, productive cough, and lethargy.

Hospital Course:
Mr. Harrison was a 72-year-old male with widely metastatic, KRAS G12C-mutated NSCLC, progressing through two lines of therapy and under hospice care for approximately 9 months prior to this final admission. He presented via EMS from home with acute respiratory distress. At home, he was on 4L NC O2; on arrival to ED, he was hypoxic (SpO2 82%), tachypneic (RR 32), tachycardic (HR 115), and afebrile. He was lethargic but arousable. Initial interventions included escalating O2 support to High-Flow Nasal Cannula (HFNC) at 40L/60% FiO2, achieving SpO2 90-92%.

Significant Investigations:

- **Labs on Admission:** WBC 11.5 (85% N), Hgb 9.2, Plt 188k. Na 132, K 4.8, Cl 98 , CO2 28, BUN 45, Cr 1.8 (AKI on CKD), Gluc 385. Albumin 2.1. LFTs mildly elevated, T Bili WNL. BNP 450. Troponin neg x1. Lactate 1.8.
- **Arterial Blood Gas (HFNC 40L/60%):** pH 7.32 / pCO2 55 / pO2 62 / HCO3 28. (Acute on chronic hypercapnic respiratory failure).
- **Chest X-Ray:** Marked bilateral interstitial prominence, small effusions, large LUL opacity.
- **CT Chest Angio (PE protocol):** No PE. Extensive bilateral interstitial thickening, septal lines, and innumerable miliary nodules highly suggestive of lymphangitic carcinomatosis. Large LUL consolidation/mass effect. Moderate bilateral pleural effusions. No signs of acute pneumonia.
- **Head CT (non-con):** Stable appearance of known, previously treated brain metastases with surrounding vasogenic edema, unchanged from prior outpatient MRI.

Management and Clinical Course:
Mr. Harrison was admitted to the medical floor on HFNC. Due to altered mental status and known brain mets, Dexamethasone 4 mg IV q6h was initiated. His hyperglycemia was aggressively managed initially with an insulin drip, later transitioned to basal-bolus (Lantus/Lispro) with difficulty achieving control due to poor/variable PO intake. IV fluids were given cautiously for AKI given potential cardiac history and volume status uncertainty. His anticoagulation (Enoxaparin) was continued.

A multidisciplinary goals of care meeting was held on Hospital Day 2 involving the Hospitalist team, Palliative Care, Oncology liaison, the patient (to the extent he could participate), and his wife and daughter. His documented advance directive indicated a desire to avoid intubation and resuscitation (DNR/DNI status). Given the CT findings of extensive lymphangitic spread, poor performance status (ECOG 4), multi-organ dysfunction (respiratory failure, AKI, poorly controlled DM), and progression through available therapies, all parties agreed that further disease-directed treatment was futile and not aligned with his goals. The focus shifted entirely to comfort measures.

He remained on HFNC but his work of breathing increased, and oxygen requirements climbed. He became progressively less responsive over the next 48 hours. Palliative Care guided symptom management:

- **Dyspnea:** Morphine infusion initiated, titrated from 1 mg/hr up to 5 mg/hr for effective control of tachypnea and respiratory distress.
- **Secretions:** Glycopyrrolate 0.2 mg IV q4-6h PRN effectively managed terminal secretions.
- **Agitation/Anxiety:** Lorazepam 0.5-1 mg IV PRN used sparingly.
- **Neurological Status:** Dexamethasone continued for comfort.

Family remained at the bedside providing support. His respiratory status continued to decline despite maximal comfort measures. He passed away peacefully on 2023-09-21 at 14:30. His overall survival from diagnosis was 26 months.

Patient Name: George Harrison **Medical Record Number:** SYN223 **Date of Birth:** 1951-03-08

Condition at Discharge: Deceased.
Autopsy: Declined by family.
Notifications: Attending physician notified. Funeral home contacted by family. Bereavement support resources provided to family.

Electronically Signed By:
Lena Hanson, MD
Hospitalist Service
Date/Time: 2023-09-21 17:15