

**Patient:** Robert Miller

**MRN:** SYN171

**Date of Birth:** 1959-02-24

**Attending Physician:** Dr. E. Harding, MD (Oncology)

**Admitting Service:** Oncology / Palliative Care Consult

**Admission Date:** 2024-04-15

**Discharge Date:** 2024-04-22

**Discharge Disposition:** Home with Hospice Services

**Admitting Diagnosis:**

1. Progressive Metastatic Non-Small Cell Lung Cancer (NSCLC), Adenocarcinoma subtype, EGFR L858R positive.
2. Severe Cancer-Related Pain, uncontrolled.
3. Failure to Thrive.
4. Hypercalcemia of Malignancy.

**Discharge Diagnoses:**

1. Terminal Metastatic NSCLC Adenocarcinoma, EGFR L858R positive, status post multiple lines of therapy.
2. Extensive Bony Metastases with Pathologic Fracture Risk.
3. Chronic Cancer-Related Pain, managed with opioid titration and scheduled palliative radiation consult.
4. Resolved Hypercalcemia of Malignancy.
5. Hypertension (Chronic).
6. Hyperlipidemia (Chronic).
7. Osteoarthritis.

**History of Present Illness:**

Mr. Miller is a 65-year-old male with a history of Stage IV NSCLC Adenocarcinoma, diagnosed on 2020-12-03 after presenting with persistent back pain. Initial workup revealed a right upper lobe lung mass with extensive osseous metastases, particularly involving the thoracic spine (T7, T9), lumbar spine (L3), and right iliac crest. Molecular testing confirmed an EGFR L858R mutation. PD-L1 testing showed high expression (TPS score: 70%).

He was initiated on first-line Osimertinib 80mg daily starting 2020-12-28. He experienced an excellent and durable response, achieving near-complete resolution of measurable disease on imaging and significant improvement in bone pain for approximately 25 months.

Approximately February 2023, surveillance imaging (CT Chest/Abdomen/Pelvis, Bone Scan) demonstrated clear radiographic progression with enlargement of previously noted bone lesions and development of new lesions in the ribs and contralateral iliac crest. A repeat liquid biopsy at that time did not identify a canonical resistance mutation like T790M or C797S. He was subsequently transitioned to second-line chemotherapy consisting of Carboplatin (AUC 5) and Pemetrexed (500 mg/m<sup>2</sup>) for 4 cycles, followed by Pemetrexed

maintenance. This provided modest disease stabilization for approximately 6 months before further progression was noted in late 2023, including worsening bone disease and new small hepatic metastases.

He was then enrolled briefly in a clinical trial evaluating a novel combination therapy but experienced significant fatigue and myelosuppression, requiring dose reductions and ultimately discontinuation after only two cycles due to further radiographic progression and clinical decline.

Over the past 2-3 months, Mr. Miller has experienced a rapid decline in functional status (ECOG 3-4), worsening intractable bone pain primarily in the lumbar spine and hips, significant weight loss (~15 lbs), anorexia, and profound fatigue. He presented to the ED one week ago (2024-04-15) with confusion, nausea, and severe pain.

### **Hospital Course:**

Upon admission, Mr. Miller was found to be lethargic with severe pain (rated 9/10).

- **Labs:** Initial labs were significant for:
  - WBC 8.2 K/uL, Hgb 9.1 g/dL, Plt 185 K/uL
  - Sodium 138 mmol/L, Potassium 4.1 mmol/L, Chloride 102 mmol/L, Bicarb 24 mmol/L, BUN 28 mg/dL, Creatinine 1.4 mg/dL (baseline 1.1)
  - Corrected Calcium 13.8 mg/dL (Ref 8.6-10.3 mg/dL)
  - AST 55 U/L, ALT 60 U/L, Alk Phos 850 U/L (Ref 40-129 U/L), Total Bili 0.8 mg/dL
  - Albumin 2.9 g/dL
  - CEA tumor marker: 185 ng/mL (previous peak ~50 ng/mL during prior progression)
- **Imaging:** Repeat CT Chest/Abdomen/Pelvis (2024-04-16) confirmed widespread progressive osseous metastatic disease with increased lytic components, stable small hepatic metastases, and stable primary site scar tissue. No acute pulmonary embolism. Dedicated spine MRI was considered but deferred given goals of care.
- **Pain Management:** Pain service consulted. Patient was transitioned from PRN oral opioids to a Fentanyl patch (initiated at 50 mcg/hr) with Morphine Sulfate Immediate Release 15mg q3h PRN for breakthrough pain. Achieved moderate control (pain reduced to 4-5/10).
- **Hypercalcemia:** Treated aggressively with IV hydration (Normal Saline) and a single dose of Zoledronic Acid (4mg IV). Calcium level normalized to 9.8 mg/dL by discharge. Renal function returned to baseline (Cr 1.1 mg/dL).
- **Goals of Care:** Extensive discussions were held with Mr. Miller and his family regarding his prognosis and goals of care. Given the refractory nature of his disease, poor performance status, and limited potential benefit from further systemic therapy, the patient expressed a clear wish to transition to comfort-focused care. Palliative care team provided invaluable support.
- **Discharge Planning:** Hospice services were arranged for home discharge. Education provided to family regarding medication administration (especially opioids) and symptom management. Radiation oncology was consulted on an

outpatient basis to consider palliative radiation to the most symptomatic bone sites (L-spine/hip) if feasible and aligned with patient comfort goals post-discharge.

**Pertinent Pathology/Genomics:**

- Initial Biopsy (Bronchoscopy, RUL mass, 2020-12-10): Adenocarcinoma, TTF-1 positive, Napsin-A positive.
- Molecular Panel (NGS): EGFR L858R mutation detected. No ALK, ROS1, BRAF V600E, MET Exon 14 skipping, RET fusion, or KRAS mutation identified.
- PD-L1 IHC (Dako 22C3): Tumor Proportion Score (TPS) = 70%.

**Medications on Discharge:**

- Fentanyl Patch 50 mcg/hr, apply one patch every 72 hours
- Morphine Sulfate IR 15 mg tablets, 1 tablet by mouth every 3 hours as needed for pain
- Senna-S 8.6/50 mg, 2 tablets by mouth twice daily (bowel regimen)
- Bisacodyl 10 mg suppository, 1 rectally daily as needed for constipation
- Ondansetron 8 mg ODT, 1 tablet sublingually every 8 hours as needed for nausea
- Dexamethasone 4 mg tablet, 1 tablet by mouth daily (for pain/appetite, short taper planned by hospice)
- Lisinopril 10 mg tablet, 1 tablet by mouth daily (for HTN)
- Atorvastatin 20 mg tablet, 1 tablet by mouth at bedtime (for HLD)
- Famotidine 20 mg tablet, 1 tablet by mouth twice daily (stress ulcer prophylaxis)

**Discharge Condition:** Guarded. Alert and oriented x3. Pain controlled to moderate levels (4-5/10) on current regimen. Vital signs stable. Tolerating sips of fluid and small amounts of nutrition. Ambulation limited to bed to chair with assistance due to pain and weakness.

**Discharge Instructions:**

- Continue all medications as prescribed above. Detailed medication schedule provided.
- Hospice team will visit within 24 hours of discharge for admission and ongoing care. Contact hospice for any urgent issues, including uncontrolled pain, nausea, shortness of breath, or constipation.
- Monitor for signs of opioid side effects (excessive sedation, confusion, constipation).
- Maintain comfort. Activity as tolerated. Liberalize diet as desired.
- Follow up with Radiation Oncology (Dr. Peters) for palliative radiation consultation scheduled for 2024-04-29 (family may cancel depending on patient status/comfort).
- No further oncologic therapy planned. Focus is on quality of life and symptom management.

**Attending Physician Signature:**

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Dr. E. Harding, MD

Date: 2024-04-22

Note: Patient died 3 days later at home