PATIENT INFORMATION:

- **NAME:** Samantha Miller
- **MRN:** SYN080
- **born:** 09/12/1970
- **ADMISSION DATE:** 04/07/2025 **DISCHARGE DATE:** 04/10/2025

PRINCIPAL DIAGNOSIS: Stage IV non-small cell lung cancer with MET exon 14 skipping mutation, metastatic to bone

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ONCOLOGIC HISTORY:

Date of Diagnosis: April 28, 2023

Initial Presentation: Chronic cough, right shoulder pain, and fatigue. Imaging revealed a 3.8 cm left upper lobe mass with multiple bone metastases.

Molecular Testing:

- MET exon 14 skipping mutation: Positive
- EGFR, ALK, ROS1, BRAF, RET, NTRK, KRAS: Negative
- PD-L1 TPS <1% (0%), CPS <1%, IC <1%

Staging: cT2bN1M1b (Stage IVB) with metastases to multiple bones (spine, ribs, pelvis, bilateral femurs)

Treatment History:

- First-line tepotinib 450mg daily initiated 05/20/2023
- Prior radiation to painful T8 metastasis (06/2023)
- Zoledronic acid 4mg IV monthly since diagnosis

Most Recent Imaging Prior to Admission (02/2025): Primary tumor decreased from 3.8 cm to 1.4 cm (63% reduction). Bone metastases showing sclerotic changes consistent with treatment response.

SECONDARY DIAGNOSES:

1. Pathologic fracture of right femoral neck (surgically treated)
2. Postoperative anemia (improved)
3. Fibromyalgia
4. Depression
5. Hypothyroidism

HISTORY OF PRESENT ILLNESS: Ms. Miller is a 54-year-old female with MET exon 14 skipping mutation-positive NSCLC diagnosed in April 2023, currently receiving tepotinib with good response. She presented with acute-onset right hip pain while rising from a chair. She was unable to bear weight and was brought to the emergency department where imaging confirmed a pathologic fracture through a metastatic lesion in the right femoral neck.

HOSPITAL COURSE:

Ms. Miller was admitted for management of a pathologic fracture of the right femoral neck. Orthopedic surgery was consulted, and the patient underwent right hip hemiarthroplasty on 04/08/2025. The procedure was uncomplicated with minimal blood loss.

Pathologic examination of the resected femoral head confirmed metastatic adenocarcinoma consistent with lung primary. MET exon 14 skipping mutation was confirmed in the metastatic sample.

The patient's tepotinib was held for 24 hours before and after surgery and resumed on postoperative day 1. Postoperative course was uncomplicated with expected mild anemia (hemoglobin nadir 9.7 g/dL) not requiring transfusion.

Physical therapy and occupational therapy evaluations were completed with initiation of mobility protocol on postoperative day 1. The patient progressed well with gait training using a walker and was independently ambulatory by discharge.

Pain was initially managed with IV hydromorphone PCA, transitioning to oral oxycodone by postoperative day 1 with good control.

DIAGNOSTIC STUDIES:

Laboratory Data:

- CBC: Hemoglobin 9.7 g/dL (postoperative), improved to 10.2 g/dL at discharge
- Comprehensive Metabolic Panel: Within normal limits
- Coagulation studies: Normal

Imaging:

- X-ray Right Hip (04/07/2025): Pathologic fracture through right femoral neck with underlying lytic lesion
- CT Right Hip (04/07/2025): Pathologic fracture through right femoral neck with 3.2 cm lytic lesion. No other suspicious lesions in visualized pelvis.
- Post-operative X-ray Right Hip (04/08/2025): Satisfactory position of right hip hemiarthroplasty components. No evidence of complications.
- CT Chest/Abdomen/Pelvis (04/09/2025): Left upper lobe primary mass stable at 1.4 cm. Known bone metastases with mixed lytic and sclerotic appearance. No new metastatic sites identified.

Pathology:

- Right femoral head (04/08/2025): Metastatic adenocarcinoma consistent with lung primary. Immunohistochemistry positive for TTF-1 and Napsin A. MET exon 14 skipping mutation confirmed by next-generation sequencing.

PROCEDURE:

- Right hip hemiarthroplasty (04/08/2025)
- Performing surgeon: Dr. Jennifer Park, Orthopedic Oncology
- Anesthesia: General
- Estimated blood loss: 250 mL
- Complications: None

DISCHARGE MEDICATIONS:

1. Tepotinib 450mg PO daily
2. Zoledronic acid 4mg IV monthly (next dose due 05/15/2025)
3. Oxycodone 5mg PO q6h PRN moderate pain
4. Oxycodone 10mg PO q6h PRN severe pain
5. Acetaminophen 650mg PO q6h scheduled for 1 week, then PRN
6. Duloxetine 60mg PO daily (for fibromyalgia and depression)
7. Levothyroxine 88mcg PO daily
8. Escitalopram 10mg PO daily
9. Enoxaparin 40mg SC daily (for 3 weeks post-surgery)
10. Docusate sodium 100mg PO BID
11. Senna 8.6mg PO bedtime PRN constipation

DISCHARGE INSTRUCTIONS:

1. Activity: Weight-bearing as tolerated on right lower extremity with walker
2. Hip precautions: No flexion >90 degrees, no internal rotation past neutral, no adduction past midline for 6 weeks
3. Physical therapy: 3 times weekly for 4 weeks as arranged
4. Follow-up appointments as listed below
5. Continue tepotinib without interruption
6. Return to emergency department for: fever >101°F, increasing pain not controlled with prescribed medications, wound drainage, or new neurologic symptoms

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FOLLOW-UP PLAN:

1. Orthopedic Surgery: Dr. Jennifer Park - 04/24/2025 (2 weeks)
2. Medical Oncology: Dr. Alexander Kim - 04/17/2025 (1 week)
3. Physical Therapy: Metropolitan Rehabilitation Center - 04/13/2025 (3 sessions per week)

4. Next scheduled CT scans: 07/15/2025 (previously scheduled)

ONCOLOGIC ASSESSMENT:

Ms. Miller has MET exon 14 skipping mutation-positive NSCLC diagnosed in April 2023 with metastases limited to bone. She has demonstrated good response to first-line tepotinib with 63% reduction in primary tumor size and stabilization of bone metastases. Her PDL1 status is negative (TPS <1%).

Current pathologic fracture represents a skeletal-related event (SRE) in the setting of known bone metastatic disease rather than disease progression. Bone metastases often remain susceptible to structural complications even during effective systemic therapy due to weakened bone architecture.

Continued tepotinib therapy is recommended given ongoing disease control. The median progression-free survival reported for MET exon 14 skipping mutation-positive NSCLC patients treated with tepotinib is approximately 11-13 months, with some patients experiencing more durable responses

Monthly zoledronic acid will continue to reduce risk of additional skeletal-related events. Consideration may be given to adding denosumab given the current fracture event, though this would be discussed at outpatient follow-up.

Overall prognosis remains favorable given continued response to targeted therapy, limited disease distribution (bone-only metastases), good performance status (ECOG 1 prior to fracture), and successful management of the current skeletal complication.

Electronically signed by:
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