

**Admission Date:** 04/06/2024

**Discharge Date:** 04/14/2024

**Attending Physician:** Dr. Samantha Carter, Oncology

**Consulting Service:** Interventional Pulmonology

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## **DISCHARGE DIAGNOSIS**

1. Hemoptysis secondary to tumor-related bronchial artery pseudoaneurysm, post-successful embolization
2. Stage IVA KRAS G12D-positive non-small cell lung cancer on first-line chemoimmunotherapy

## **ONCOLOGIC HISTORY**

55-year-old female diagnosed with metastatic NSCLC in September 2023 following workup for persistent cough and hemoptysis. Initial staging showed primary left upper lobe mass with intrapulmonary metastases to left lower lobe and right middle lobe. Molecular testing identified KRAS G12D mutation with intermediate PD-L1 expression (TPS 35%). Currently receiving first-line carboplatin/pemetrexed/pembrolizumab since 10/06/2023 with good partial response after 5 cycles.

## **HOSPITAL COURSE**

Patient presented with acute onset large-volume hemoptysis (approximately 200cc bright red blood) while at home. She was admitted for stabilization and evaluation. Initial chest CT with contrast showed decreased size of known lung lesions consistent with treatment response, but identified a 4mm bronchial artery pseudoaneurysm adjacent to the primary left upper lobe tumor. Patient underwent urgent bronchial artery embolization by Interventional Radiology with complete technical success and immediate cessation of hemoptysis.

Post-procedure course was uncomplicated with no recurrence of bleeding. Serial hemoglobin remained stable. Patient was monitored

for 48 hours post-procedure with no respiratory compromise. Oncology evaluated disease status and determined that the partial response to current therapy is excellent, with approximately 45% reduction in target lesions after 5 cycles of therapy. Cycle 6 of carboplatin/pemetrexed/pembrolizumab was administered during this hospitalization per scheduled timing. Afterwards she will be on pemetrexed/pembrolizumab maintenance.

## **DIAGNOSTIC STUDIES**

### **Hemoglobin Trend:**

- ED presentation: 11.2 g/dL
- Post-embolization: 10.8 g/dL
- Discharge: 11.0 g/dL

### **Chest CT with Contrast (04/07/2024):**

- Left upper lobe primary mass decreased to 3.2 cm (previously 5.8 cm)
- Left lower lobe nodule decreased to 1.0 cm (previously 1.8 cm)
- Right middle lobe nodule decreased to 0.8 cm (previously 1.5 cm)
- 4mm bronchial artery pseudoaneurysm adjacent to LUL mass
- No new lesions
- No pleural or pericardial effusion

### **Bronchial Arteriogram (04/07/2024):**

- Hypertrophied left bronchial artery with 4mm pseudoaneurysm
- Successful coil embolization of feeding vessel
- Complete cessation of contrast extravasation post-embolization

### **Pulmonary Function Tests (04/08/2024):**

- FEV1: 2.3L (76% predicted)
- FVC: 3.1L (82% predicted)
- DLCO: 70% predicted

## **TREATMENT DETAILS**

### **Current Systemic Therapy:**

- Carboplatin AUC 5 IV every 3 weeks
- Pemetrexed 500 mg/m<sup>2</sup> IV every 3 weeks
- Pembrolizumab 200 mg IV every 3 weeks
- Current cycle: #6 (administered 04/10/2024)
- Excellent partial response (45% reduction per RECIST)

### **Interventional Procedure:**

- Bronchial artery embolization using platinum microcoils
- Date: 04/07/2024
- Operator: Dr. James Murray
- No complications

### **DISCHARGE PLAN**

#### **Medications:**

1. Continue all pre-admission medications
2. Dexamethasone 4mg PO BID × 3 days (post-chemotherapy)
3. Ondansetron 8mg PO q8h PRN nausea
4. Tranexamic acid 1000mg PO q8h PRN hemoptysis (for 7 days only)

#### **Follow-up:**

1. Interventional Radiology: Dr. Murray in 1 week (04/21/2024)
2. Medical Oncology: Dr. Carter in 2 weeks (04/28/2024)
3. CT chest in 6 weeks to assess continued response

#### **Instructions:**

1. Monitor for recurrent hemoptysis; if occurs, present to ED immediately
2. Avoid NSAIDs, anticoagulants, and antiplatelet agents for 2 weeks
3. Maintain good hydration (2-3 liters daily)

**Prognosis:** Excellent short-term prognosis given good response to therapy and successful management of bleeding complication. Long-

term prognosis guarded given metastatic KRAS-driven NSCLC, though clinical trials targeting KRAS G12D may become available if progression occurs on current therapy.

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Electronically signed by:  
Samantha Carter, MD  
Department of Medical Oncology  
04/14/2024 16:20

**Patient:** Jenna Dreyfuß (MRN SYN198)  
**DOB:** 11/29/1969  
**Gender:** Female