**Patient:** Michael Westfield (1980-02-01)  
**Medical Record Number:** 583921  
**Date of Admission:** 2025-03-18  
**Date of Discharge:** 2025-03-23  
**Admitting Physician:** Dr. V. Bennett (Medical Oncology)  
**Consulting Physician:** Dr. P. Sharma (Thoracic Surgery), Dr. R. Patel (Interventional Radiology)

**Discharge Diagnosis: Stage IV Malignant Melanoma (BRAF V600E mutation positive) with Disease Progression on First-Line BRAF/MEK Inhibitor Therapy, New Large Pulmonary Metastasis**

**1. Detailed Diagnosis:**

Primary Diagnosis: Malignant Melanoma, Stage IV (AJCC 8th Edition)  
Date of Initial Diagnosis: 2024-06-20  
Primary Site: Left upper back

Initial Pathology (2024-06-20): Malignant melanoma, superficial spreading type with nodular component. Breslow thickness: 3.6 mm, Clark level: IV. Ulceration: Present. Mitotic rate: 5 mitoses/mm². Microsatellitosis: Absent. Lymphovascular invasion: Present. Tumor-infiltrating lymphocytes: Non-brisk. Regression: Absent. Perineural invasion: Absent. Margins: Clear (closest margin 0.8 cm)

Staging (2024-08-15):

* CT chest/abdomen/pelvis: Two pulmonary nodules (largest 1.2 cm RUL) and one liver metastasis (segment VII, 2.1 cm)
* MRI brain: No evidence of intracranial metastases
* PET/CT: FDG-avid pulmonary and hepatic metastases, no other sites of metastatic disease
* LDH at diagnosis: 358 U/l
* AJCC Staging: Stage IV (pT3b pN2a M1c)

Molecular Testing:

* BRAF V600E mutation: Positive (allele frequency 38%)
* NRAS mutation: Negative
* C-KIT mutation: Negative
* PD-L1 expression (tumor proportion score): 20%
* Tumor mutational burden: Intermediate (10 mutations/Mb)
* Microsatellite status: Stable

**2. Current Treatment:**

Current Disease Status:

* Progressive disease on first-line BRAF/MEK inhibitor therapy after initial partial response
* CT chest (2025-03-15): New large right lower lobe pulmonary metastasis (6.4 cm) causing partial bronchial obstruction and post-obstructive pneumonitis
* CT abdomen/pelvis (2025-03-15): Previously noted liver metastasis stable (2.0 cm)
* MRI brain (2025-03-16): No evidence of intracranial metastases
* Lactate dehydrogenase (LDH): 380 U/L (increased from baseline 220 U/L)
* CT-guided core needle biopsy of new lung metastasis performed during hospitalization (2025-03-19): Consistent with metastatic melanoma, no new actionable mutations identified

New Treatment Plan:

* Discontinue BRAF/MEK inhibitor therapy due to disease progression
* Transition to second-line immunotherapy with combination ipilimumab and nivolumab
* Nivolumab 3 mg/kg IV + Ipilimumab 1 mg/kg IV every 3 weeks for 4 cycles
* Following completion of 4 cycles: Nivolumab 480 mg IV every 4 weeks maintenance
* First dose scheduled for 2025-03-25

**3. History of Previous Treatment:**

Surgical Management:

* Wide local excision of primary melanoma with 2-cm margins (2024-07-10)
* Left axillary sentinel lymph node biopsy (2024-07-10)
* Complete left axillary lymph node dissection (2024-07-31)

Systemic Therapy:

* First-line therapy: Encorafenib 450 mg PO once daily and Binimetinib 45 mg PO twice daily (started 2024-09-01)
* Dose modifications: Binimetinib dose reduced to 30 mg BID on 2024-11-15 due to Grade 2 retinopathy
* Toxicities:
  + Grade 2 retinopathy (improved to Grade 1 after dose reduction)
  + Grade 1-2 fatigue
  + Grade 1 arthralgia
  + Grade 1 photosensitivity
* Initial response: Partial response noted on first restaging scans (2024-11-30)
* Subsequent response: Continued partial response on second restaging scans (2025-01-15)

**4. Secondary Illnesses (Comorbidities):**

* Psoriasis (diagnosed 2010, well-controlled on topical therapy)
* Asthma (mild, intermittent)
* History of recurrent herpes zoster (last episode 2023-12)
* Migraine headaches (with aura, 2-3 episodes monthly)
* Vitamin D deficiency
* History of depression (managed with escitalopram)

**5. Physical Exam at Admission:**

**General:** 45-year-old male appearing mildly uncomfortable but in no acute respiratory distress.

**Vitals:** Temperature 37.8°C, Heart Rate 92 bpm, Respiratory Rate 20/min, Blood Pressure 128/78 mmHg, Oxygen Saturation 94% on room air, Weight 78 kg, Height 183 cm, BMI 23.3 kg/m².

**HEENT:** Normocephalic, atraumatic. No scleral icterus. Mucous membranes moist. Pupils equal, round, reactive to light. Extraocular movements intact.

**Neck:** Supple, no lymphadenopathy.

**Cardiovascular:** Regular rate and rhythm, normal S1/S2, no murmurs, rubs, or gallops.

**Respiratory:** Decreased breath sounds in right lower lobe. Occasional wheezes. No crackles. No pleural rub.

**Abdomen:** Soft, non-tender, non-distended. No palpable hepatosplenomegaly. Normal bowel sounds.

**Musculoskeletal:** Left axillary surgical scar well-healed. Full range of motion in shoulders bilaterally. No joint swelling or tenderness.

**Neurological:** Alert and oriented ×3. Cranial nerves II-XII intact. Motor strength 5/5 in all extremities. Sensory intact. Deep tendon reflexes 2+ throughout. No focal deficits.

**Skin:** Left upper back surgical scar well-healed. Several psoriatic plaques on elbows and knees, currently well-controlled. No evidence of new suspicious lesions or satellite nodules.

**6. Epicrisis:**

Mr. Westfield is a 45-year-old male with stage IV BRAF V600E-mutated melanoma who was admitted for evaluation and management of a new, large right lower lobe pulmonary metastasis discovered on routine surveillance imaging despite ongoing BRAF/MEK inhibitor therapy (encorafenib/binimetinib).

The patient initially presented with a 2-week history of increasing dyspnea on exertion, non-productive cough, and right-sided chest discomfort. Outpatient CT scan revealed a new 6.4 cm right lower lobe mass causing partial bronchial obstruction with post-obstructive pneumonitis. Laboratory studies showed elevated inflammatory markers (CRP 4.2 mg/dL) and increased LDH (380 U/L).

On admission, he was started on empiric antibiotics (ceftriaxone and azithromycin) for possible superimposed pneumonia. CT-guided core needle biopsy of the lung mass was performed by interventional radiology, confirming metastatic melanoma. Thoracic surgery consultation determined that surgical resection would not be appropriate given the size, location, and presence of other metastatic sites. Pulmonary function improved with bronchodilator therapy and antibiotics.

Given the disease progression on BRAF/MEK inhibitor therapy after an initial response period of approximately 6 months, the decision was made to discontinue encorafenib/binimetinib on 2025-03-21 and transition to second-line immunotherapy with combination ipilimumab and nivolumab. The oncology team had an in-depth discussion with the patient regarding his autoimmune comorbidity (psoriasis) and the potential risks of immune checkpoint inhibitor therapy in this context. However, given the aggressive progression and symptomatic nature of his disease, the patient elected to proceed with dual checkpoint inhibitor therapy with careful monitoring for autoimmune flares.

The patient's respiratory symptoms improved during hospitalization, with oxygen saturation improving to 97% on room air. He was discharged home in stable condition on a course of oral antibiotics to complete treatment for pneumonia, with instructions to discontinue BRAF/MEK inhibitors immediately and to return in 2 days for initiation of ipilimumab/nivolumab immunotherapy.

**7. Medication at Discharge:**

* Amoxicillin-Clavulanate 875 mg/125 mg PO twice daily for 7 days
* Albuterol inhaler 2 puffs Q4-6H PRN wheezing/shortness of breath
* Escitalopram 10 mg PO daily
* Calcipotriene/betamethasone ointment apply to psoriatic plaques once daily PRN
* Sumatriptan 50 mg PO at onset of migraine, may repeat once after 2 hours if needed
* Vitamin D3 2000 IU PO daily
* Acetaminophen 650 mg PO Q6H PRN pain/fever
* Valacyclovir 500 mg PO daily (prophylaxis for recurrent herpes zoster)

Medications Discontinued:

* Encorafenib 450 mg PO once daily (discontinued due to disease progression)
* Binimetinib 30 mg PO twice daily (discontinued due to disease progression)

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

Medical Oncology:

* Appointment with Dr. V. Bennett on 2025-03-25 for initiation of ipilimumab/nivolumab combination therapy
* Scheduled to receive nivolumab 3 mg/kg IV + ipilimumab 1 mg/kg IV every 3 weeks for 4 cycles, followed by nivolumab 480 mg IV every 4 weeks maintenance
* Baseline laboratory studies prior to immunotherapy initiation including CBC, CMP, TSH, free T4, cortisol, and ACTH
* Education provided regarding potential immune-related adverse events and reporting instructions, with special attention to potential exacerbation of psoriasis

Pulmonology:

* Appointment with Dr. A. Fischer in 1 week (2025-03-31)
* Pulmonary function tests scheduled for 2025-03-31
* Repeat chest CT in 8 weeks to assess response to immunotherapy

Dermatology:

* Appointment with Dr. J. Morris in 2 weeks (2025-04-05)
* Baseline full skin examination prior to immunotherapy
* Monitoring for psoriasis flare and immune-related dermatologic adverse events

Monitoring and Surveillance:

* MRI brain every 12 weeks
* CT chest/abdomen/pelvis every 9 weeks for the first 6 months, then every 12 weeks
* LDH and comprehensive metabolic panel prior to each immunotherapy infusion

Patient Education:

* Instructions provided regarding:
  + Respiratory symptom monitoring
  + Signs of psoriasis flare requiring attention
  + Comprehensive education on potential immune-related adverse events with combination ipilimumab/nivolumab
  + Recognition of early signs of immune-related adverse events and importance of prompt reporting
  + Instruction to contact Oncology office immediately if severe psoriasis flare occurs prior to scheduled dermatology appointment
  + When to seek immediate medical attention

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Admission (2025-03-18)** | **Discharge (2025-03-23)** | **Units** | **Reference Range** |
| WBC | 11.5 | 8.8 | ×10^9/L | 4.0-11.0 |
| Hemoglobin | 13.8 | 13.5 | g/dL | 13.5-17.5 |
| Platelets | 290 | 275 | ×10^9/L | 150-400 |
| Sodium | 138 | 139 | mmol/L | 135-145 |
| Potassium | 4.3 | 4.1 | mmol/L | 3.5-5.0 |
| Chloride | 102 | 103 | mmol/L | 98-107 |
| Bicarbonate | 24 | 25 | mmol/L | 22-29 |
| BUN | 15 | 14 | mg/dL | 7-20 |
| Creatinine | 0.9 | 0.8 | mg/dL | 0.7-1.2 |
| Glucose | 95 | 102 | mg/dL | 70-99 |
| Calcium | 9.2 | 9.3 | mg/dL | 8.6-10.2 |
| Albumin | 3.9 | 4.0 | g/dL | 3.5-5.0 |
| Total Bilirubin | 0.7 | 0.6 | mg/dL | 0.1-1.2 |
| AST | 38 | 35 | U/L | 10-40 |
| ALT | 42 | 38 | U/L | 10-55 |
| Alkaline Phosphatase | 105 | 98 | U/L | 35-105 |
| LDH | 380 | 365 | U/L | 125-220 |
| CRP | 4.2 | 1.8 | mg/dL | <0.5 |

Electronically Signed By:  
Dr. V. Bennett (Medical Oncology)  
Date/Time: 2025-03-23 15:30

Dr. P. Sharma (Thoracic Surgery)  
Date/Time: 2025-03-23 14:15

Dr. R. Patel (Interventional Radiology)  
Date/Time: 2025-03-23 13:45