UNIVERSITY MEDICAL NETWORK THORACIC ONCOLOGY DIVISION DISCHARGE SUMMARY

Date of Discharge: April 14, 2025

PATIENT DATA:

Name: Dorothy McAllister ID SYN188 DOB: 06/21/1975 Sex: Female Age: 49

Admission Date: 04/08/2025

DIAGNOSES:

1. Postoperative recovery following video-assisted thoracic surgery (VATS) with wedge resection of isolated progressing right lower lobe metastasis in a patient with EGFR exon 19 deletion-positive NSCLC on osimertinib
2. Controlled primary NSCLC with oligoprogression

ONCOLOGIC HISTORY:

Patient is a 49-year-old female diagnosed with stage IVA NSCLC in October 2022 with intrapulmonary metastases. Initially presented with persistent cough and incidental finding on chest X-ray. Currently on Osimertinib since November 2022 with excellent disease control except for a single progressing right lower lobe metastasis, which was the target of current surgical intervention.

HISTOPATHOLOGY DETAILS:

Original Diagnostic Specimen (10/08/2022):

- Specimen type: CT-guided core needle biopsy, left upper lobe mass
- Gross description: Two cores of tan-white soft tissue measuring 1.2 and 0.9 cm in length
- Microscopic findings:
    - Moderately differentiated adenocarcinoma with predominant acinar pattern (70%)
    - Papillary component (20%)
    - Micropapillary features (10%)
    - Tumor cells with moderate nuclear atypia, vesicular chromatin, and conspicuous nucleoli
    - Moderate amount of eosinophilic cytoplasm
    - No significant necrosis
    - Mitotic rate: 4 mitoses/10 HPF
    - Mild lymphocytic infiltration at tumor-stroma interface
- Immunohistochemical profile:
    - TTF-1: Diffusely positive (>95% of cells)
    - Napsin A: Strongly positive

    - CK7: Positive
    - CK20: Negative
    - p40: Negative
    - ALK (D5F3): Negative
    - ROS1 (D4D6): Negative
    - PD-L1 (22C3): TPS 30%, CPS 35, IC 10%
- Molecular studies:
    - Next-generation sequencing panel:
        - EGFR exon 19 deletion (p.E746_A750del) detected
        - TP53 R273H mutation (VAF 45%)
        - No other actionable alterations
    - FISH: Negative for ALK, ROS1, RET rearrangements
    - No PD-L1/JAK2/PDGFRA/KIT amplifications detected

Current Surgical Specimen (04/08/2025):

- Specimen: Right lower lobe wedge resection
- Gross description: Wedge of lung parenchyma (5.2 × 3.8 × 2.1 cm) containing a well-circumscribed, firm, tan-white nodule (1.8 cm) with central fibrosis
- Microscopic findings:
    - Moderately differentiated adenocarcinoma with predominant acinar pattern
    - Increased fibrosis and inflammatory response compared to primary tumor
    - Areas of treatment effect with foamy macrophages and lymphocytic infiltration
    - Negative margins (closest 0.7 cm)
    - Similar morphology to original primary tumor
    - Significantly less mitotic activity (1 mitosis/10 HPF)
- Immunohistochemical profile:
    - TTF-1: Positive
    - Napsin A: Positive
    - EGFR L858R mutant-specific antibody: Negative
    - EGFR exon 19 deletion mutant-specific antibody: Positive
- Molecular studies on surgical specimen:
    - EGFR exon 19 deletion (p.E746_A750del) detected
    - TP53 R273H mutation present
    - New secondary EGFR T790M mutation detected (VAF 15%)
    - MET amplification: Negative
    - BRAF mutations: Not detected
    - HER2 mutations/amplifications: Not detected

HOSPITAL COURSE:

Patient underwent uneventful VATS with wedge resection of the isolated progressing RLL nodule on 04/08/2025. Postoperative course was uncomplicated with good pain control and no air leak. Chest tube was removed on POD #2. Patient ambulated independently on POD #1 and advanced to regular diet. Final pathology confirmed the presence of a secondary T790M mutation as the likely mechanism of focal resistance, despite continued response of primary tumor and other metastatic sites to osimertinib.

Multidisciplinary tumor board discussion recommended increasing osimertinib to 160mg daily (double standard dose) based on evidence that higher dosing can overcome T790M-

mediated resistance in some cases, rather than switching therapy at this time. Patient was counseled on the rationale for dose escalation and potential side effects. Thoracic surgical oncology team recommended surveillance chest CT in 8 weeks to assess response to dose-intensified therapy.

DISCHARGE PLAN:

1. Medications:
    - Osimertinib 160mg PO daily (increased from 80mg)
    - Acetaminophen 650mg PO q6h PRN pain
    - Oxycodone 5mg PO q6h PRN breakthrough pain
    - Resume home medications
2. Follow-up Appointments:
    - Thoracic Surgery: 04/21/2025
    - Medical Oncology: 04/28/2025
    - Chest CT: 06/09/2025
3. Special Instructions:
    - Monitor for increasing side effects with higher-dose osimertinib
    - Report any dyspnea, chest pain, fever, or wound concerns
    - Continue incentive spirometry every hour while awake
    - No heavy lifting (>10 lbs) for 4 weeks
4. Disposition:
    - Home with self-care
    - No home services required

CONDITION AT DISCHARGE: Stable. Afebrile. Pain well-controlled. Lungs clear to auscultation bilaterally. Surgical sites healing appropriately. Ambulating independently. ECOG PS 1.

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