

DISCHARGE LETTER

Name: Judy Grahams (Patient ID: SYN173)

Date of Birth: January 8, 1963

Date of Diagnosis: April 28, 2021

Diagnosis: NSCLC – Adenocarcinoma, Stage IVB with mets in Brain (initial), Bone (femoral head, thoracic spine)

Mol: ALK rearrangement (EML4-ALK fusion, variant 3). PD-L1 Expression: <1% TPS, CPS 2, IC 0

Clinical Presentation (April 2021)

The patient presented with mechanical back pain, morning headaches, and transient left visual blurring. MRI of the brain showed two enhancing right occipital lesions (0.8 cm and 1.3 cm) with mild surrounding edema. CT chest demonstrated a 2.4 cm right upper lobe lesion, with no significant lymphadenopathy. Whole-body PET-CT revealed FDG-avid T6 vertebral lesion and left femoral head lytic lesion.

Histopathologic diagnosis from CT-guided lung biopsy: poorly differentiated adenocarcinoma, TTF-1+, CK7+, ALK positive by FISH (rearranged nuclei 94%), confirmed via NGS as **EML4-ALK v3**.

Alectinib Treatment Course

Alectinib initiated May 20th, 2021, 600 mg BID. The patient tolerated therapy well with minor adverse effects. She has remained progression-free for nearly 3 years with sustained clinical benefit.

Toxicities:

- **Grade 1 anemia** (Hb nadir 10.3 g/dL, improved spontaneously)
- **Mild myalgias**, controlled with stretching and magnesium
- **Constipation**, resolved with dietary fiber and stool softeners

Imaging Timeline:

Date	Modality	Key Findings
May 2021	MRI Brain	2 occipital lesions (1.3 and 0.8 cm)
Jul 2021	MRI Brain	Complete response (no enhancing lesions)
Nov 2021	PET-CT	Lung mass reduced to 1.1 cm; FDG-avid bone lesions inactive
Apr 2022	MRI Spine	T6 lesion sclerotic, no epidural extension
Dec 2023	PET-CT	No FDG-avid disease

Date	Modality	Key Findings
Feb 2025	MRI Brain	No recurrence; continued CR in CNS

Laboratory Trends

Date	Hb (g/dL)	ALK Phos (U/L)	AST/ALT (U/L)	Creatinine (mg/dL)	Lipids (Lorlatinib screening)
May 2021	11.7	88	24/22	0.9	N/A
Nov 2022	10.3	102	27/29	0.8	N/A
Aug 2023	11.8	75	26/25	0.9	N/A
Mar 2024	12.0	91	22/24	1.0	N/A

CEA and CA 27.29 negative at baseline and follow-up.

Bone Metastases Management:

- Started **Denosumab 120 mg SC** monthly since June 2021
- **Vitamin D 2000 IU daily + Calcium 500 mg BID**
- **Radiation therapy** to T6 spine: 30 Gy in 10 fractions (Aug 2021)
- No skeletal-related events since

Surveillance Plan

- **MRI Brain** every 4 months
- **PET-CT** every 6–8 months
- CBC, CMP every cycle
- Continue alectinib until progression or toxicity
- Re-biopsy or ctDNA (Guardant360) if disease progression occurs

Assessment: This patient continues to experience durable disease control with CNS stability on first-line alectinib. No signs of systemic or intracranial relapse have been observed. She maintains ECOG 0 and fully independent activities of daily living.

Prepared by: Oncology Fellow, Molecular Lung Service

Reviewed on: 14 April 2025