Primary Diagnosis: Stage IV NSCLC with EGFR L858R mutation

Date of Diagnosis: 22 September 2021

Sites of Metastasis: Bilateral pulmonary, right adrenal gland

Patient ID: SYN207 **Name**: Pedro Sanchez Jr **DOB**: 29 January 1959

Clinical History & Diagnostic Work-up

The patient, a 62-year-old retired engineer, presented with a two-month history of chronic cough, hemoptysis, and a 5 kg weight loss. Chest CT revealed a 4.2 cm spiculated mass in the right upper lobe with multiple contralateral nodules and a 2.3 cm FDG-avid right adrenal mass.

Bronchoscopy with biopsy confirmed adenocarcinoma, TTF-1+, Napsin A+, CK7+, with absence of squamous differentiation. Molecular analysis using real-time PCR identified an activating EGFR L858R point mutation in exon 21. PD-L1 TPS was 25%, TMB low at 2.9 mut/Mb, and MSI-stable.

Treatment and Disease Monitoring

Osimertinib 80 mg daily was initiated on 14 October 2021. Baseline cardiac workup (QTc 435 ms, LVEF 65%) was unremarkable. The patient experienced early symptomatic relief and partial radiologic response at 8 weeks.

Serial CTs demonstrated continuous disease regression through the first year of treatment. By month 12, the adrenal lesion had resolved, and lung nodules had shrunk by >50%. Mild toxicities included Grade 1 diarrhea, manageable acneiform rash (topical clindamycin), and dry skin.

In July 2023, surveillance imaging identified new ground-glass opacities in the left lower lobe. Biopsy ruled out progression or infection; suspected radiation-induced pneumonitis. Continued osimertinib with clinical observation.

October 2023 CT stable. MRI brain (December 2023) remained negative for metastasis. ECOG PS remained 0–1.

Also managed GERD (pantoprazole 40 mg), hyperlipidemia (atorvastatin 20 mg), and borderline diabetes (HbA1c 6.2%). Regular ophthalmologic evaluations revealed no signs of keratitis or visual toxicity.

Advanced Monitoring & Future Strategy

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Patient was enrolled in the national LUCA longitudinal registry. Plasma ctDNA monitoring every 6 months showed no detectable EGFR resistance mutations as of March 2025. No signs of T790M or MET amplification.

Will continue osimertinib with periodic T790M screening and plan for re-biopsy or transition to chemotherapy or trial enrollment upon clinical progression.

Patient remains highly functional, performs regular aerobic exercise, and lives independently. Pulmonary function tests (PFTs) remain stable with FEV1 >80% predicted.

Physician: Dr. L. Carter, MD, Lung Cancer Program

Date of Discharge Note: 14 April 2025