

**Patient Information:**

- **Name:** Clara Eugenie Robards
- **Patient ID:** SYN036
- **DOB:** 20/03/1966 F

**Date of Diagnosis:** 10/04/2023

- **Primary Diagnosis:** Stage IV ROS1-rearranged Non-Small Cell Lung Cancer (NSCLC) with solitary adrenal metastasis

**Molecular Profile:**

- **Driver Mutation:** ROS1 fusion confirmed via FoundationOne CDx on FFPE tumor tissue
- **PD-L1 Status:** TPS <1%, CPS 2, IC 0 (22C3 pharmDx assay)

**Treatment Course:**

- **First-Line Therapy:** Entrectinib (600 mg daily)
- **Start Date:** 02/05/2023
- **Current Status:** Ongoing with stable disease (radiologic and clinical)

**Clinical Course:** Ms. Robards was diagnosed after presenting with vague right flank pain and fatigue. Initial evaluation with contrast-enhanced CT thorax-abdomen revealed a 3.1 cm spiculated lesion in the right upper lobe and a synchronous hypermetabolic right adrenal mass (SUV max 9.2). EBUS-guided biopsy confirmed lung adenocarcinoma, and molecular profiling revealed ROS1 rearrangement without additional co-mutations. CSF analysis and MRI brain ruled out CNS involvement at diagnosis.

Following initiation of entrectinib, patient experienced mild dizziness (Grade 1) and constipation which resolved without dose adjustment. After 9 months of therapy, restaging scans demonstrated 58% shrinkage of the primary lesion and a significant reduction of the adrenal mass to 1.4 cm, consistent with RECIST 1.1 partial response. Serial liquid biopsies (Guardant360) showed clearance of ROS1 fusion ctDNA by month 6.

**Relevant Comorbidities:**

- Type II diabetes mellitus (diagnosed 2017, HbA1c 6.3%, on metformin 1000 mg BID)
- Essential hypertension (amlodipine 5 mg daily)
- Chronic kidney disease stage II (baseline eGFR ~72 mL/min/1.73m<sup>2</sup>)
- Remote smoking history (5 pack-years, quit in 1993)

**Laboratory Findings (31/03/2025):**

- WBC:  $6.1 \times 10^9/L$
- Hb: 12.9 g/dL
- Platelets:  $245 \times 10^9/L$
- Creatinine: 1.1 mg/dL
- AST/ALT: 28/24 U/L
- LDH: 154 U/L
- TSH: 1.9 mIU/L

**Future Considerations:**

- Ongoing entrectinib with quarterly CT chest/abdomen and annual brain MRI
- Cardiology review due to QTc prolongation (baseline QTc 460 ms on EKG)
- Consider lorlatinib or repotrectinib upon progression given CNS activity
- Endocrinology follow-up for adrenal surveillance and glycemic control