Parietal lobe metastases

A 64-year-old non-smoker woman was diagnosed with stage IV non-small cell lung adenocarcinoma with EGFR L858R mutation and brain metastases in November 2018. Treatment with gefitinib and gamma knife radiosurgery was started as the first-line treatment. After 7 months, she experienced disease progression with increased primary lung lesions and switched to osimertinib based on an acquired EGFR T790M mutation. After another 4 months, the disease progressed, and she was switched to chemotherapy. During chemotherapy, brain MRI showed an increasing number of parietal lobe metastases. Hence, gamma knife radiosurgery was performed again. After 12 months, the disease progression resumed, and an EGFR L718Q mutation was found on biopsy. The patient was then challenged with dacomitinib, and the disease was partially responsive and under control for 6 months.

Currently, there are no established guidelines for overcoming osimertinib resistance caused by the L718Q mutation. The acquired EGFR L718Q mutation in subsequent resistance to osimertinib could be overcome using dacomitinib, indicating a promising treatment option in the clinic [1].

1)
Shen Q, Qu J, Chen Z, Zhou J. Case Report: Dacomitinib Overcomes Osimertinib Resistance in NSCLC Patient Harboring L718Q Mutation: A Case Report. Front Oncol. 2021 Dec 2;11:760097. doi: 10.3389/fonc.2021.760097. PMID: 34926262; PMCID: PMC8674200.