

SUCCESSFUL MULTIVARIATE TREATMENT OF STAGE IV EGFR EXON-19 MUTANT PULMONARY ADENOCARCINOMA

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In April 2019, our patient underwent primary tumor removal during diagnostic VATS atypical resection, which confirmed stage IV (T1bN2M1c) pulmonary adenocarcinoma with liver and bone metastases. Molecular pathology studies described an EGFR exon-19 mutation, so in May 2019, the patient was initiated first-line targeted EGFR inhibitor gefitinib therapy and bisphosphonate therapy for bone metastases. Restaging PET-CT after 7 cycles in October 2019 confirmed the appearance of novum lesions in the liver as well as the left axilla. Two liquid biopsy tests for T790 mutation analysis gave a negative result. Subsequently, molecular pathological analysis of a histological sample of the lymph node removed from the left axilla confirmed the primary mutation exon-19 and the T790 mutation on exon 20 EGFR. In view of the resistance mutation, the patient was initiated on a second line of osimertinib in December 2019, however, after 2 cycles, repeated progression was observed for liver and bone metastases. As EGFR targeted therapeutic options were depleted, we initiated Paclitaxel + Carboplatin + Bevacizumab + Atezolizumab combination therapy in the third line on an individual basis and targeted RFA treatment for liver metastases was performed. A control CT scan showed a significant regression of liver metastases with a small progression of bone metastases, so the previous bisphosphonate therapy was replaced by denosumab treatment. In April 2020, in addition to atezolizumab and avastin maintenance therapy, methotrexate treatment supplemented with a b-blocker was initiated at the recommendation of an endocrinologist due to incipient hyperthyroidism observed in laboratories. After two months, control laboratory studies depicted hypothyroidism, so after repeated endocrinological consultation, the patient was started on dose titration of L-thyroxine, with thyroid function resolved. In August 2020, two small brain metastases appeared. On the basis of Onkoteam's suggestion, stereotaxic irradiation occurred in the area of oligometastases. Currently, our patient continues to receive maintenance treatment with atezolizumab and bevacizumab as well as denosumab. Last PET-CT examination showed significant overall regression. .