

Long-term response to Crizotinib in a 17-year-old boy with naïve alk-positive Non-Small Cell Lung Cancer

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Abstract

Lung cancer is the leading cause of cancer-related death. NSCLC accounts for 80-90% of cases. In younger patients, adenocarcinoma is the most frequent histotype and 3-7% expresses the rearrangement of ALK oncogene, sensitive to TKIs. Crizotinib is the first ALK inhibitor approved by FDA. We present the case of a 17-year-old male with metastatic naïve ALK-positive adenocarcinoma, treated with crizotinib. He received crizotinib and obtained a prolonged response with PFS of 33 months. Crizotinib can be extremely effective in adolescent with naïve ALK-positive NSCLC but it hardly penetrates blood-brain barrier. Resistance mechanisms will be investigated for a better management.

LONG-TERM RESPONSE TO CRIZOTINIB IN A 17-YEAR-OLD BOY WITH NAÏVE ALK-POSITIVE NON-SMALL-CELL LUNG CANCER

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Abbreviation	Full term
SCLS	Small Cell Lung Cancer
NSCLC	Non-Small Cell Lung Cancer
EGFR	Epidermal Growth Factor Receptor
ALK	Anaplastic Lymphoma Kinase
TKI	Tyrosine Kinase Inhibitor
EML-4	Echinoderm Microtubule-associated Protein Like-4
FDA	Food and Drug Administration
PFS	Progression-Free Survival
CT	Computed Tomography
MRI	Magnetic Resonance Imaging
CK7+	Cytokeratine 7+
TTF1+	Transcriptional Thyroid Factor 1+
ROS1	c-Ros Oncogene 1
CTCAE	Common Terminology Criteria for Adverse Events
CNS	Central Nervous System
BBB	Blood-Brain Barrier

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