

# Erlotinib

Development of **epidermal growth factor receptor tyrosine kinase inhibitors** (EGFR-TKIs): **gefitinib** or **erlotinib**, was an improvement in treatment of advanced **NSCLC** patients. EGFR mutations are present in 10-25% of NSCLC (mostly adenocarcinoma), and up to 55% in never-smoking women of East Asian descent. In the non-selected group of patients with BMF-NSCLC, the overall response rates after gefitinib or erlotinib treatment range from 10% to 38%, and the duration of response ranges from 9 to 13.5 months. In the case of present activating EGFR mutation, the response rate after EGRF-TKIs is greater than 50%, and in selected groups (adenocarcinoma, patients of Asian descent, never-smokers, asymptomatic BMF-NSCLC) even 70%. Gefitinib or erlotinib treatment improves survival of BMF-NSCLC patients with EGFR mutation in comparison to cases without the presence of this mutation. There is no data on the activity of the anti-EML4-ALK agent crizotinib. Bevacizumab, recombinant humanised monoclonal antibody anti-VEGF, in the treatment of advanced non-squamous NSCLC patients is a subject of intense research. Data from a clinical trial enrolling patients with pretreated or occult BMF-NSCLC proved that the addition of bevacizumab to various chemotherapy agents or erlotinib is a safe and efficient treatment, associated with a low incidence of CSN haemorrhages. However, the efficacy and safety of bevacizumab used for therapeutic intent, regarding active brain metastases is unknown <sup>1)</sup>.

The failure of hormonal and cytotoxic chemotherapy in the treatment of recurrent meningioma and increasing understanding of potential molecular targets in meningioma has resulted in multiple studies utilizing single-agent targeted therapy directed at biologically relevant signaling pathways, such as **somatostatin** (Sandostatin(®) LAR, SOM230c), PDGF (**imatinib**), EGF (**erlotinib**) and VEGF (sunitinib and **vatalanib**) <sup>2)</sup>.

<sup>1)</sup>

Cedrych I, Kruczała MA, Walasek T, Jakubowicz J, Blecharz P, Reinfuss M. Systemic treatment of non-small cell lung cancer brain metastases. Contemp Oncol (Pozn). 2016;20(5):352-357. doi: 10.5114/wo.2016.64593. Epub 2016 Dec 20. Review. PubMed PMID: 28373815; PubMed Central PMCID: PMC5371701.

<sup>2)</sup>

Chamberlain MC, Barnholtz-Sloan JS. Medical treatment of recurrent meningiomas. Expert Rev Neurother. 2011 Oct;11(10):1425-32. doi: 10.1586/ern.11.38. Review. PubMed PMID: 21955199.

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