Abstract


Prospective study of biotin treatment in patients with erythema due to gefitinib or erlotinib.


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OBJECTIVE: Gefitinib and erlotinib, which are epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs), have been used for the treatment of inoperable and recurrent non-small cell lung cancer (NSCLC) patients. These drugs are known to cause a skin rash, one of the major side effects, at a high frequency. Biotin is a water-soluble vitamin, and it belongs to the vitamin B family. It is well known that biotin deficiency increases the risk of skin dermatitis.

METHODS: We administered biotin to four patients with skin rash, all of whom were treated with either gefitinib or erlotinib and were unable to be treated by a steroid ointment alone.

RESULTS: In all patients, administration of biotin reduced the skin rash. Surprisingly, in 2 patients in whom EGFR-TKI therapy was discontinued because of the skin rash, the administration of biotin allowed for long-term gefitinib or erlotinib treatment.

CONCLUSION: Biotin may be considered useful for the treatment of skin rash caused by EGFR-TKIs. Further trials may be needed to confirm the value of biotin in this setting.

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