中文題目：Afatinib 罕見之副作用——間質性肺炎 個案報告

英文題目：Rare side effect of Afatinib - Interstitial Lung Disease: Case Report

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Abstract:

Introduction

Afatinib is known as the first-line treatment for advanced/metastatic non-small cell lung cancer (NSCLC) patients with epidermal growth factor receptor (EGFR) mutation. While most patients have no side effects or can tolerate its side effects well, a small group of patients might still develop drug-induced interstitial lung disease (ILD), which is not often noted among patients taking afatinib, but might lead to drug discontinuation or even death of patients taking the medication. Herein, we report a case with afatinib induced interstitial lung disease.

Case Presentation

A 51-year-old female with unremarkable medical history came to the emergent department for dyspnea. The chest radiograph showed nodular pattern in bilateral lung field. Computed tomography of the chest revealed multiple nodules in bilateral lung with right lower lung mass-like lesion. Endobronchial biopsy was done, and the pathology confirmed the diagnosis of adenocarcinoma. Later on the specimen was proved to be exon19 deletion positive. Afatinib was prescribed as first line treatment for her stage IV disease with TMN stage T4N3M1c. However, persistent dyspnea with rapidly progressed hypoxemia occurred after receiving afatinib for one week. Follow-up computed tomography revealed diminished nodule pattern but newly onset interstitial pattern over bilateral lung field. Afatinib was discontinued and high dose methylprednisolone was prescribed. After systemic steroid use, the hypoxemic condition was improved, and the endotracheal tube was removed. The following computed tomography revealed partial improvement of interstitial pattern over bilateral lung field. Afatinib was changed to erlotinib later. Under the treatment of erlotinib, the patient's condition remained stable till now, and ILD has not been noted so far.

Discussion

EGFR TKIs have been approved as therapy for EGFR mutation-positive advanced/metastatic NSCLC for over a decade. Although afatinib can improve survival of this group of patients, it still carries some adverse effects, including diarrhea, rash or acne, mucositis and paronychia. In addition to these common adverse effects, acute ILD has been reported as an infrequent complication under the treatment of EGFR TKIs. Although the incidence of afatinib-induced ILD is rare, the consequences may be serious and potentially fatal. The presentation of ILD is often non-specific and may mimic other common respiratory pathologies such as pneumocystis jiroveci pneumonia. High-dose corticosteroid therapy is suggested as the therapy for EGFR TKIs induced ILD. It was reported that the average mortality rate of EGFR-TKI-induced ILD is 44.3%, whereas that of ILD with a diffuse alveolar damage pattern was 75%. Due to this risk of life-threatening adverse event, EGFR-TKI rechallenge should be extremely careful. In a literature review of

EGFR-TKI rechallenge, it never produced recurrence of ILD with glucocorticoid use, while recurrence was observed without glucocorticoid use. The present case demonstrated that rechallenge with erlotinib combined with systemic steroid was successfully effective in the management of advanced/metastatic NSCLC patient who developed afatinib-induced ILD, and no recurrence of ILD has been observed so far.