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The Okayama Lung Cancer Study Group Experience: A Comparison of the Incidence and Pattern of Interstitial Lung Disease during Erlotinib and Gefitinib Treatment in Japanese Patients with Non-Small Cell Lung Cancer

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Description

The new appearance of the epidermal development factor receptor tyrosine kinase inhibitors (EGFR-TKIs) gefitinib and erlotinib has rejuvenated interest in the therapy of cutting edge non-little cell cellular breakdown in the lungs (NSCLC), in light of their remarkable system of activity contrasted and cytotoxic specialists [1, 2]. Erlotinib and gefitinib are both tyrosine kinase inhibitors (TKIs) that are frequently used to treat non-small cell lung cancer (NSCLC) that has epidermal growth factor receptor (EGFR) mutations. Several phase III trials with EGFR-TKIs in relapsed NSCLC patients have demonstrated the noninferiority of gefitinib to docetaxel1 [3-5]. Nonetheless, one possible result of these medications is the improvement of interstitial lung infection (ILD), a gathering of lung problems that cause irritation and scarring of the lung tissue. ILD can cause fatigue, shortness of breath, and coughing, and it can even be fatal in some cases [6, 7].

Patients getting erlotinib or gefitinib ought to be firmly checked for signs and side effects of ILD, especially during the initial not many long periods of treatment. The TKI should be stopped immediately and appropriate treatment should be started if ILD is suspected [8].

Corticosteroids, oxygen therapy, and other supportive measures may be used to treat ILD. Patients may require hospitalization or mechanical ventilation in some instances.

Medical services suppliers really should gauge the expected advantages and dangers of erlotinib or gefitinib therapy in patients with NSCLC, especially those with a background marked by ILD or other lung illnesses. If you want these patients to have the best possible outcomes, you need to keep a close eye on them and take care of ILD as soon as possible [9-11]. In light of the consequences of a stage II preliminary (Iressa Portion Assessment in Cutting edge NSCLC), gefitinib was supported in Japan for the treatment of inoperable or repetitive NSCLC in July, 2002. In any case, extreme pneumonic harmfulness brought about by interstitial lung illness (ILD)3 was accounted for, and a few examinations uncovered that the event of ILD among NSCLC patients getting gefitinib was 3.5 to 5.8%. A planned, huge companion concentrate as of late affirmed a comparable ILD recurrence (4.5%; Rate of death: 31.6%) [12]. The reported incidence of ILD during gefitinib treatment is higher in Japanese patients than it is in patients outside of Japan (1%). There are a number of possible explanations for this disparity, such as differences in the follow-up period, the clinical characteristics of the study population, and the applied diagnostic criteria for ILD. A genetic difference in how Japanese and other populations respond to gefitinib is another clinically intriguing hypothesis [13]. Despite the fact that half a decade has passed since the first report of ILD during EGFR-TKI therapy3, Japanese oncologists and patients believe that ILD is a serious adverse event during gefitinib treatment. The reasons for the difference in the incidence of ILD remain unknown [14].

Erlotinib received approval in December 2007, five years after the Japanese government approved gefitinib. From that point forward, an enormous number of patients have gotten this specialist. Nonetheless, information showing the recurrence of ILD among Japanese patients getting erlotinib are scant. In this study, we investigated the frequency and pattern of ILD in Japanese NSCLC patients receiving gefitinib or erlotinib monotherapy in the clinical setting [15]. There was a rather lower occurrence of ILD with erlotinib treatment than with gefitinib treatment, regardless of no measurably tremendous contrast. The difference in the incidence of ILD between the two treatments may be explained by Japanese physicians' awareness of the risk factors for ILD rather than the type of agent.

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Conflict of interest

None

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