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Prevalence and Risk Factors of Potential Drug-Drug Interactions with Gefitinib in Patients with Non-Small Cell Lung Cancer: a Real-World Cross-Sectional Study

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SUMMARY. **Gefitinib is widely used in patients with non-small cell lung cancer. In this study, we monitored, documented, and analyzed potential drug-drug interactions (DDIs) in patients diagnosed with lung cancer and treated with gefitinib at the First Affiliated Hospital of Bengbu Medical College. Medical records of lung cancer patients treated with gefitinib admitted to the hospital for 12 months were collected for this study. DDIs between gefitinib and other drugs were evaluated using the Medscape and Drugs websites. Multivariate logistic regression model was used to explore the risk factors of DDI, and receiver operating characteristic curve (ROC) was used to evaluate the performance of the model. A total of 353 cancer patients were recruited, and their drug therapy regiment was thoroughly analyzed. We detected 498 DDIs among the included patients, all were the monitor closely type. 247 patients (69.97%) encountered at least one potential DDIs during their hospitalization. The most common DDI with gefitinib was proton pump inhibitors (33.13%), followed by dexamethasone (32.53%). Logistic regression showed that the number of drugs was the risk factor for DDIs. Potentially monitor closely DDIs occur frequently in patients treated with gefitinib, and this study may help on how to reduce the frequency of DDI, improve the precision and safety of treatment.**

RESUMEN. Gefitinib se usa ampliamente en pacientes con cáncer de pulmón de células no pequeñas. En este estudio, monitoreamos, documentamos y analizamos posibles interacciones farmacológicas (DDI) en pacientes diagnosticados con cáncer de pulmón y tratados con gefitinib en el First Affiliated Hospital of Bengbu Medical College. Para este estudio se recogieron los registros médicos de pacientes con cáncer de pulmón tratados con gefitinib admitidos en el hospital durante 12 meses. Las DDI entre gefitinib y otros fármacos se evaluaron utilizando los sitios web Medscape y Drugs. Se utilizó un modelo de regresión logística multivariable para explorar los factores de riesgo de DDI, y se utilizó la curva característica operativa del receptor (ROC) para evaluar el rendimiento del modelo. Se reclutó un total de 353 pacientes con cáncer y se analizó minuciosamente su regimiento de terapia farmacológica. Detectamos 498 DDI entre los pacientes incluidos, todos eran del tipo monitor de cerca. 247 pacientes (69,97%) encontraron al menos un DDI potencial durante su hospitalización. La DDI más frecuente con gefitinib fueron los inhibidores de la bomba de protones (33,13 %), seguidos de la dexametasona (32,53 %). La regresión logística mostró que el número de medicamentos fue el factor de riesgo para las IDD. Potencialmente, monitoree de cerca las DDI que ocurren con frecuencia en pacientes tratados con gefitinib, y este estudio puede ayudar a reducir la frecuencia de DDI, mejorar la precisión y la seguridad del tratamiento.

KEY WORDS: drug-drug interactions, gefitinib, non-small cell lung cancer, proton pump inhibitors, risk factors,

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