CORRELACIÓN ENTRE LA EXPRESIÓN DE EGFR, ALK Y PD-L1 Y LA SUPERVIVENCIA EN PACIENTES CON ADENOCARCINOMA PULMONAR

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RESUMEN

El cáncer de pulmón es la principal causa de incidencia y mortalidad por cáncer a nivel mundial, representando el 12.4% de todos los casos reportados. Es el resultado de la acción de múltiples factores que dañan el epitelio bronquial, lo que lo convierte en el más significativo en términos de mortalidad en el mundo occidental.

Objetivo: Determinar la relación entre la supervivencia de los pacientes con adenocarcinoma de pulmón y la expresión de los marcadores EGFR, ALK y PD-L1.

Métodos: Se realizó un estudio de cohorte prospectivo en un centro de tratamiento oncológico en Barranquilla, Colombia, con pacientes de 18 años o más diagnosticados con adenocarcinoma. Se recopilaron datos de los pacientes, incluyendo demografía, marcadores tumorales (EGFR, ALK, PD-L1), antecedentes de tabaquismo y resultados clínicos. Los análisis estadísticos incluyeron las pruebas de Kolmogorov-Smirnov, Kruskal-Wallis, exacta de Fisher y el análisis de supervivencia de Kaplan-Meier.

Resultados: El estudio incluyó 193 pacientes, predominantemente mujeres (53%), con una edad media de 68 años. La mayoría de los pacientes provenían de áreas urbanas (86%) y eran fumadores (48%). Se encontró una alta prevalencia de adenocarcinoma pobremente diferenciado (54%) y enfermedad en estadio IV (86%). La metástasis sistémica fue común (60%), con una alta tasa de mortalidad (79%). Los pacientes con expresión de PD-L1 ≥1% presentaron una puntuación ECOG más alta, lo que indica un peor estado funcional. La supervivencia global media fue de 23 meses para los pacientes con mutación en EGFR, significativamente mayor que para otros marcadores. Las puntuaciones ECOG altas se correlacionaron con mayor expresión de PD-L1 y peores resultados.

Conclusión: Los pacientes con adenocarcinoma suelen presentarse con enfermedad en estadios avanzados, destacando la necesidad de una detección temprana. La expresión de PD-L1 y la puntuación ECOG son predictores críticos de supervivencia. La terapia personalizada basada en marcadores genéticos como EGFR, ALK y PD-L1 puede mejorar los resultados.

Palabras clave: Cáncer de pulmón; Adenocarcinoma; EGFR; ALK; PD-L1; Supervivencia; Biomarcadores

ABSTRACT

Lung cancer is the leading cause of cancer incidence and mortality worldwide, accounting for 12.4% of all reported cases. It results from the action of multiple factors that damage the bronchial epithelium, making it the most significant in terms of mortality in the Western world.

Objetive: To determine the relationship between the survival of patients with lung adenocarcinoma and the expression of the markers EGFR, ALK, and PD-L1.

Methods: A prospective cohort study was conducted at a cancer treatment center in Barranquilla, Colombia, involving patients aged 18 and older diagnosed with adenocarcinoma. Patient data, including demographics, tumor markers (EGFR, ALK, PD-L1), smoking history, and clinical outcomes, were collected. Statistical analyses included the Kolmogorov-Smirnov test, Kruskal-Wallis test, Fisher's exact test, and Kaplan-Meier survival analysis.

Results: The study included 193 patients, predominantly female (53%), with a median age of 68 years. Most patients were from urban areas (86%) and were smokers (48%). The study found a high prevalence of poorly differentiated adenocarcinoma (54%) and stage IV disease (86%). Systemic metastasis was common (60%), with a high mortality rate (79%). Patients with PD-L1 expression ≥1% had a higher ECOG score, indicating worse functional status. Median overall survival was 23 months for EGFR-mutant patients, significantly longer than for other markers. High ECOG scores correlated with higher PD-L1 expression and worse outcomes.

Conclusion: Adenocarcinoma patients often present with advanced-stage disease, highlighting the need for early detection. PD-L1 expression and ECOG score are critical predictors of survival. Personalized therapy based on genetic markers such as EGFR, ALK, and PD-L1 can improve outcomes.

Keywords: Lung cancer; Adenocarcinoma; EGFR; ALK; PD-L1; Survival; Biomarkers

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