

# **LIPOPROTEÍNA (a) LP(a) COMO POSIBLE FACTOR DE RIESGO CARDIOVASCULAR EN PACIENTES MAYORES DE 40 AÑOS EN UN CENTRO DE SALUD DE LA CIUDAD DE BARRANQUILLA, COLOMBIA**

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## RESUMEN

**Antecedentes:** La lipoproteína a [Lp(a)], es una variante estructural de la lipoproteína de baja densidad (LDL) caracterizada por la presencia de apolipoproteína(a) en su estructura. Estudios recientes han asociado niveles sanguíneos elevados (>50 mg/dL) de Lp(a) con un mayor riesgo de eventos cardiovasculares, dado el rol que posee en procesos proaterogénicos, inflamatorios y trombogénicos. En este sentido, su síntesis se caracteriza por poseer una fuerte influencia genotípica, describiendo una susceptibilidad relativamente baja frente a terapias convencionales como las mediadas por estatinas.

**Objetivo:** En el presente trabajo se evalúa el papel de los niveles de Lp(a) en sangre como posible factor predictivo en la reclasificación del riesgo y en el desarrollo de enfermedades cardiovasculares en pacientes mayores de 40 años con y sin historial clínico de eventos cardiovasculares.

**Metodología:** Estudio retrospectivo de corte transversal basado en la revisión de una base de datos de pacientes de consulta externa, consolidada del centro de atención cardiovascular Cardiodiagnóstico S.A. mediante la herramienta SALUD TOOLS, en la ciudad de Barranquilla, Colombia. Se seleccionó una muestra de n=62 pacientes mayores de 40 años que incluye hombres y mujeres, independientemente de la presencia de comorbilidades o antecedentes cardiovasculares, siempre que cumplan con los criterios de inclusión que comprenden a pacientes con registros completos de sus niveles de lipoproteína (a), así como los datos necesarios para calcular el riesgo cardiovascular mediante la escala ASCVD, focalizando en el estrato muestral de pacientes mayores de 40 años, ya que representan individuos para los cuales es aplicable la estimación del riesgo de ECV mediante ASCVD.

**Resultados Esperados:** Se espera determinar si la lipoproteína a incide en la reclasificación del riesgo cardiovascular, así como su posible influencia particular en la ocurrencia de eventos cardiovasculares en los pacientes con riesgo moderado y riesgo alto.

**Importancia o Justificación:** La enfermedad cardiovascular sigue siendo la principal causa de muerte a nivel mundial, de esta manera, diagnosticar adecuadamente a los pacientes que cursan el riesgo de padecerla es un objetivo primordial. Actualmente el enfoque de prevención de esta patología se basa en escalas de riesgo cardiovascular, en las que la Lp(a) no forma parte de los estándares de predicción de riesgo de enfermedad aterosclerótica aórtica, lo que pone de manifiesto la necesidad de su evaluación como factor de riesgo potencial en la estratificación del riesgo cardiovascular, especialmente en poblaciones de mediana y de avanzada edad.

### Palabras clave

*Lipoproteína a, riesgo cardiovascular, eventos cardiovasculares, aterosclerosis.*

## ABSTRACT

**Background:** Lipoprotein(a) [Lp(a)] is a structural variant of low-density lipoprotein (LDL), characterized by the presence of apolipoprotein(a) in its structure. Recent studies have linked elevated blood levels (>50 mg/dL) of Lp(a) with a higher risk of cardiovascular events, given its role in pro-atherogenic, inflammatory, and thrombogenic processes. Its synthesis is strongly influenced by genetic factors, showing relatively low susceptibility to conventional therapies, such as statin-based treatments.

**Objective:** This study evaluates the role of blood Lp(a) levels as a potential predictive factor in risk reclassification and the development of cardiovascular diseases in patients aged over 40, with and without a history of cardiovascular events.

**Methodology:** A retrospective cross-sectional cohort study was conducted based on the review of an outpatient database from the cardiovascular care center Cardiodiagnóstico S.A. in Barranquilla, Colombia, using the SALUD TOOLS platform. A sample of n=62 patients over 40 years of age was selected, including men and women, regardless of comorbidities or cardiovascular history, provided they met the inclusion criteria. These criteria required complete records of their lipoprotein(a) levels and sufficient data to calculate cardiovascular risk using the ASCVD scale. The study focuses on the subset of patients over 40 years old, as they represent individuals for whom ASCVD-based cardiovascular risk estimation is applicable.

**Expected Results:** The study aims to determine whether lipoprotein(a) contributes to cardiovascular risk reclassification and assess its potential influence on the occurrence of cardiovascular events, particularly in patients with moderate and high risk.

**Significance or Justification:** Cardiovascular disease remains the leading cause of death worldwide, making the accurate identification of at-risk patients a critical goal. Current preventive strategies for this condition rely on cardiovascular risk scales, which do not include Lp(a) as a standard predictor of atherosclerotic cardiovascular disease risk. This highlights the need to evaluate Lp(a) as a potential risk factor in cardiovascular risk stratification, especially among middle-aged and older populations.

**Key Words:** *Lipoprotein(a), cardiovascular risk, cardiovascular events, atherosclerosis.*

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