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571 - CARDIOVASCULAR HEALTH AND CIRCULATING GDF-15 IN OLDER ADULTS

D. Gómez-ángel, M. Sotos-Prieto, E. García-Esquinas, B. Fabre Estremera, A. Buño Soto, F. Rodríguez Artalejo, R. Ortolá

Universidad Autónoma de Madrid; CIBERESP; Harvard T.H. Chan School of Public Health; IMDEA Nutrition Institute; Centro Nacional de Epidemiología; Hospital Universitario La Paz.

Resumen

Background/Objectives: Growth differentiation factor-15 (GDF-15) is a stress-responsive biomarker related to inflammation, organ dysfunction, and adverse aging outcomes. However, whether GDF-15 is associated with cardiovascular health - characterized by multiple biological indicators and health-related behaviors- in older adults remains unclear.

Methods: We conducted a cross-sectional analysis of 2,475 community-dwelling adults (mean age 71.5 years; 52.7% women) from the Seniors-ENRICA-2 cohort. Cardiovascular health was assessed using the American Heart Association's Life's Essential 8 (LE8), categorized as low (< 50), moderate (50-79), and high (≥ 80). Serum GDF-15 concentrations were measured using an immunoassay on a COBAS 6000 analyzer (Roche Diagnostics) and log-transformed for analysis. Linear regression models were used to estimate mean percentage differences (95%CI) in GDF-15 across LE8 categories and per 10-point increase in LE8, with sequential adjustment for sociodemographic factors, lifestyle variables, clinical morbidities, estimated glomerular filtration rate, and interleukin-6.

Results: Compared with low LE8, moderate and high LE8 were associated with 16.5% (95%CI 12.4-20.4) and 23.0% (17.2-28.4) lower GDF-15, respectively, in the fully adjusted model. Each 10-point higher LE8 was associated with 7.7% (6.4-9.1) lower GDF-15. Component analyses suggested the strongest inverse associations for higher

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diet quality, lower nicotine exposure, better glycemic control, and higher physical activity.

Conclusions/Recommendations: Higher LE8 scores were strongly associated with lower circulating GDF-15 in older adults, suggesting that better cardiovascular health may help reduce biological stress and adverse aging-related processes, independently of comorbidities, kidney function, and systemic inflammation.

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