Skin autofluorescence?indicated advanced glycation end products as predictors of cardiovascular and all-cause mortality in high-risk subjects: A systematic review and meta-analysis

Cavero-Redondo I.

Soriano-Cano A.

Álvarez-Bueno C.

Cunha P.G.

Martínez-Hortelano J.A.

Garrido-Miguel M.

Berlanga-Macías C.

Martínez-Vizcaíno V.

predictors of atherosclerotic-related disorders. This study aimed to estimate the relationship between advanced glycation end products indicated by skin autofluorescence levels and the risk of cardiovascular and all-cause mortality based on data from observational studies. Methods and Results-?We systematically searched Medline, Embase, the Cochrane Central Register of Controlled Trials, the Cochrane Database of Systematic Reviews, and the Web of Science databases from their inceptions until November 2017 for observational studies addressing the association of advanced glycation end products by skin autofluorescence levels with cardiovascular and all-cause mortality. The DerSimonian and Laird random-effects method was used to compute pooled estimates of hazard ratios and their respective 95% confidence intervals for the risk of cardiovascular and all-cause mortality associated with levels of advanced glycation end products by skin autofluorescence. Ten published studies were included in the systematic review and meta-analysis. Higher skin autofluorescence levels were significantly associated with a higher pooled risk estimate for cardiovascular mortality (hazard ratio: 2.06; 95% confidence interval, 1.58?2.67), which might not be important to moderate heterogeneity (I2=34.7%; P=0.163), and for all-cause mortality (hazard ratio: 1.91; 95% confidence interval, 1.42?2.56) with substantial

heterogeneity (I2=60.8%; P=0.0.18). Conclusions-?Our data suggest that skin autofluorescence levels could be considered predictors of all-cause mortality and cardiovascular mortality in patients at high and very high risk. © 2018 The Authors.

Advanced glycation end products

Cardiovascular complications

Meta-analysis

Mortality

Skin autofluorescence

advanced glycation end product

advanced glycation end product

biological marker

all cause mortality

autofluorescence

cardiovascular mortality

high risk population

human

mortality risk

prediction

priority journal

Review

risk assessment

skin

skin autofluorescence

systematic review

cardiovascular disease

cause of death

diagnostic imaging

global health

incidence

luminescence

meta analysis

metabolism

predictive value

procedures

risk factor

skin

survival rate

Biomarkers

Cardiovascular Diseases

Cause of Death

Global Health

Glycation End Products, Advanced

Humans

Incidence

Luminescent Measurements

Predictive Value of Tests

Risk Assessment

Risk Factors

Skin

Survival Rate