

Gene polymorphism linked to cardiac morbidity, mortality

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(HealthDay)—The functional nonsynonymous single nucleotide polymorphism (rs6318) of the *5HTR2C* gene is associated with increased risk of cardiovascular disease mortality and morbidity, according to a study published online Dec. 18 in *PLOS ONE*.

Beverly H. Brummett, Ph.D., from the Duke University Medical Center in Durham, N.C., and colleagues investigated allelic variation in rs6318 as a predictor of [coronary artery disease](#) severity and of a composite end point of all-cause mortality or [myocardial infarction](#) (MI) in a cohort of 6,126 Caucasian participants (65.9 percent males).

During a median follow-up of 5.3 years, the researchers identified 1,769 events (1,544 deaths and 225 MIs). In unadjusted models, males hemizygous for Ser23 C and females homozygous for Ser23 C had a

significantly increased risk for the composite end point, compared with Cys23 G carriers (hazard ratio, 1.47; P = 0.0008). In males and females, the rs6318 genotype was not associated with [body mass index](#), diabetes, hypertension, dyslipidemia, smoking history, number of diseased coronary arteries, or left ventricular ejection fraction, after adjustment for age. The estimate for the two Ser23 C groups was modestly attenuated after adjustment for these covariates, but remained statistically significant (hazard ratio, 1.38; P = 0.005).

"These findings suggest that this functional polymorphism of the *5HTR2C* gene is associated with increased risk for [cardiovascular disease](#) mortality and morbidity, but this association is apparently not explained by the association of rs6318 with traditional risk factors or conventional markers of atherosclerotic disease," the authors write.

More information: [Full Text](#)

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