

Gln27?Glu?2-adrenergic receptor polymorphism in heart failure patients:

Differential clinical and oxidative response to carvedilol

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We investigated the clinical response of chronic heart failure patients with ?2-adrenergic receptor Gln27?Glu polymorphism treated for 6 months with carvedilol, a ?/?-antagonist with antioxidant properties. The 6-min. walk test, the left ventricular ejection fraction, heart rate, plasma norepinephrine and malondialdehyde, a stress oxidative marker, concentrations were evaluated at baseline and after treatment for 6 months with carvedilol in 33 stable chronic heart failure patients with the Gln27?Glu?2-adrenergic receptor polymorphism. Carvedilol significantly increased the left ventricular ejection fraction, while decreasing the heart rate and malondialdehyde plasma concentrations in chronic heart failure patients with the Glu 27?2-adrenergic receptor allele. There were however, no significant changes in patients with the Gln27?2- adrenergic receptor variant. ©

