Serum magnesium and risk of sudden cardiac death in the Atherosclerosis Risk in Communities (ARIC) Study

Background: We hypothesized that serum magnesium (Mg) is associated with increased risk of sudden cardiac death (SCD)

Methods: The Atherosclerosis Risk in Communities Study assessed risk factors and levels of serum Mg in a cohort of 45- to 1989 (n = 14,232). After an average of 12 years of follow-up, we observed 264 cases of SCD, as determined by physician re used proportional hazards regression to evaluate the association of serum Mg with risk of SCD.

Results: Individuals in the highest quartile of serum Mg were at significantly lower risk of SCD in all models. This association potential confounding variables, with an almost 40% reduced risk of SCD (hazard ratio 0.62, 95% CI 0.42-0.93) in quartile 4 in the fully adjusted model.Conclusions: This study suggests that low levels of serum Mg may be an important predictor of S effectiveness of Mg supplementation for those considered to be at high risk for SCD is warranted.

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