Are lipid-lowering drugs also antiarrhythmic drugs? An analysis of the Antiarrhythmics versus Implantable Defibrillators (AVID) trial.

Abstract:
OBJECTIVES: This study sought to evaluate the antiarrhythmic effects of lipid-lowering drug therapy as assessed by ventricular tachyarrhythmia (ventricular tachycardia [VT]/ventricular fibrillation [VF]) recurrences recorded by an implantable cardioverter defibrillator (ICD) in patients with atherosclerotic heart disease (ASHD).

BACKGROUND: Randomized trials of lipid-lowering drugs suggest reduction of sudden death (SD) in patients with ASHD. Because SD is usually secondary to VT/VF, this observation suggests that lipid-lowering therapy has antiarrhythmic effects.

METHODS: The probability of VT/VF recurrence in patients with ASHD treated with an ICD in the Antiarrhythmics Versus Implantable Defibrillators (AVID) trial who did not receive lipid-lowering drug therapy (n = 279) was compared with that in patients who received early and consistent lipid-lowering therapy (n = 83). In addition, all-cause mortality and cardiac mortality of all patients in the AVID trial with ASHD who did not receive lipid-lowering therapy (n = 564) were compared with that of those who received early and consistent lipid-lowering therapy (n = 149).

RESULTS: Using multivariate analyses, lipid-lowering therapy was associated with a reduction in the relative hazard for VT/VF recurrence of 0.40 (95% confidence interval [CI] 0.15 to 0.58) (adjusted p = 0.003) in...
the ICD subgroup. Lipid-lowering therapy was also associated with a reduction in the relative hazard for all-cause mortality of 0.36 (95% CI 0.15 to 0.68) (adjusted p = 0.03) and a reduction in the relative hazard for cardiac mortality of 0.39 (95% CI 0.16 to 0.78) (adjusted p = 0.04) in the larger study population. CONCLUSIONS: In patients with ASHD who have received an ICD, lipid-lowering therapy is associated with reduction in the probability of VT/VF recurrence, suggesting that part of the benefit of lipid-lowering therapy may be due to an antiarrhythmic effect.