Julian, D., Camm, A., Frangin, G. et al. Randomized trial of effect of Amiodarone on mortality in patients with left-ventricular dysfunction after recent myocardial infarction: EMIAT.

BACKGROUND: Ventricular arrhythmias are a major cause of death after myocardial infarction, especially in patients with poor left-ventricular function. Previous attempts to identify and suppress arrhythmias with various antiarrhythmic drugs failed to reduce or actually increase mortality. Amiodarone is a powerful antiarrhythmic drug with several potentially beneficial actions, and has shown benefit in several small-scale studies. We postulated that this drug might reduce mortality in patients at high risk of death after myocardial infarction because of impaired ventricular function, irrespective of whether they had ventricular arrhythmias.

METHODS: The European Myocardial Infarct Amiodarone Trial (EMIAT) was a randomised double-blind placebo-controlled trial to assess whether amiodarone reduced all-cause mortality (primary endpoint) and cardiac mortality and arrhythmic death (secondary endpoints) in survivors of myocardial infarction with a left-ventricular ejection fraction (LVEF) of 40% or less. Intention-to-treat and on-treatment analyses were done.

FINDINGS: EMIAT enrolled 1486 patients (743 in the amiodarone group, 743 in the placebo group). Median follow-up was 21 months. All-cause mortality (103 deaths in the amiodarone group, 102 in the placebo group) and cardiac mortality did not differ between the two groups. However, in the amiodarone group, there was a 35% risk reduction (95% CI 0-58, p = 0.05) in arrhythmic deaths.

INTERPRETATION: Our findings do not support the systematic prophylactic use of amiodarone in all patients with depressed left-ventricular function after myocardial infarction. However, the lack of proarrhythmia and the reduction in arrhythmic death support the use of amiodarone in patients for whom antiarrhythmic therapy is indicated.