

DANISH Trial: ICDs in Non-Ischaemic Heart Failure



Results of the DANISH trial were presented at the ESC Congress 2016 and revealed that placement of an implantable cardioverter-defibrillator (ICD) in patients with non-ischaemic systolic heart failure did not improve overall survival compared to usual clinical care. However, the risk of sudden cardiac death was halved with ICD placement. The results are published simultaneously in the *New England Journal of Medicine*.

As explained by study investigator Lars Kober, MD, from Rigshospitalet, Copenhagen University Hospital in Copenhagen, Denmark, ICD implantation is a class 1 recommendation in heart failure patients and in those with reduced left ventricular function. But so far, very limited data was available on the use of ICDs in patients with non-ischaemic aetiology. Findings from this trial suggest that ICDs should not be used routinely in all patients with systolic heart failure.

During this study, 560 control patients received usual care including beta blockers, renin-angiotensin inhibitors and mineralcorticoid-receptor antagonists while 556 patients received an ICD. An equal proportion of patients in both groups received cardiac-resynchronisation therapy (CRT) via biventricular pacemakers in the control group and via a device combining CRT and ICD in the ICD group.

At follow-up, it was found that the primary outcome of death for all causes occurred in 21.6 percent of patients in the ICD group as compared to 23.4 percent in the control group. This was a non-significant difference. However, sudden death occurred in only 4.3 percent of patients in the ICD group as compared to 8.2 percent in the control group.

An important interaction was observed with age. Patients younger than 68 years of age demonstrated a significant reduction in all-cause mortality with ICD implantation which suggests that survival benefit with ICD implantation is greater in younger patients.

"Guidelines are based on multiple studies and ICD treatment should still have a class 1A recommendation for prevention of sudden cardiac death in non-ischaemic heart failure also. However, patients with a high risk of non-sudden death may not benefit, and age should be an important factor in the decision to give an ICD, along with comorbidities," Dr Kober concluded.

Source: ESC

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