

Inexpensive drug can reduce deaths from heart failure, study finds

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(PhysOrg.com) -- The risk of death and hospitalisation of patients with heart failure can be reduced considerably by administering a cheap and easily available drug, according to new medical research.

A study, led by doctors from France, USA, Australia, Netherlands, Scotland and Sweden, under the Chairmanship of Professor Faiez Zannad (University of Nancy) and Prof Bertram Pitt (University of Michigan), has shown the drug eplerenone can cut cardiovascular deaths and hospitalisations of patients with heart failure by 37 per cent in relative terms (7.6 per cent in absolute terms).

The finding could change the way patients are treated, helping to improve the lives of people with heart failure – a long-term, condition, affecting about two per cent of the population in Scotland.

Heart failure is the result of a weakened heart muscle caused by previous damage from heart attacks, high blood pressure and other causes. The heart pumps less effectively than normal, leading to breathlessness, fatigue, swollen ankles, frequent admission to hospital and shortened life-expectancy. Heart failure is a major cause of disability and death and a huge burden to the NHS as well as patients and their families.

Professor John McMurray, Professor of Cardiology in the Institute of Cardiovascular and Medical Sciences at the University of Glasgow, who was part of the small team that designed and led the trial, said: “This was an unusually successful trial: the treatment not only reduced both deaths

and hospital admissions from all causes, but was also well-tolerated and is inexpensive. We do not see such positive results very often.

“This trial will change the way we manage our patients. Everyone with heart-failure should be considered for treatment with a drug of this type – it will make patients feel better, stay out of hospital and live longer.”

The study, reported in the *New England Journal of Medicine*, recruited 2,737 patients from 29 countries, all of whom were being treated for mild forms of systolic heart failure.

Over a period of four years from 30 March 2006 to 25 May 2010, 1,364 were given the drug while 1,373 were given a placebo.

Eplerenone is a mineralocorticoid antagonist which works by blocking the actions of certain hormones, aldosterone and cortisol, which are produced in excessive amounts in patients with heart failure and are harmful.

The results showed that cardiovascular death or hospitalisation for heart failure occurred in 18.3 per cent of the eplerenone group and in 25.9 per cent of the placebo group.

Prof McMurray said: “Eplerenone is not expensive and there is a related, generic, drug, spironolactone, with similar properties, which is likely have similar effects. This type of treatment should be available and affordable across the globe. Our trial has huge public health implications.”

The study, entitled ‘[EMPHASIS: Eplerenone in Mild Patients Hospitalisation and Survival Study in Heart Failure](#)’, is published in the latest edition of the *New England Journal of Medicine*.

Provided by University of Glasgow

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