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Treatment to open blocked kidney arteries shows no real benefit to patients

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Treating patients who suffer from narrowing of the main blood vessel to the kidney by inserting a metal stent provides little or no worthwhile clinical benefit, and given the risk of serious complications it should be used less, according to an international trial led by the University of Birmingham.

In findings published in the New England Journal of Medicine (12th November), scientists report that in most patients revascularisation, the process of opening up blocked blood vessels, does not stabilise or improve kidney function or blood pressure control or reduce cardiovascular disease or mortality, more than medical therapy alone.

Atherosclerotic renal artery stenosis is a disease of the arteries in which fatty plaques develop on the inside of the main arteries to the kidneys affecting blood flow and the ability of the kidneys to work properly. The Angioplasty and Stenting for Renal Artery Lesions (ASTRAL) trial is the largest trial to date into treatment for this kidney condition. The seven year trial funded by the Medical Research Council, Kidney Research UK and Medtronic investigated whether combining revascularisation and medical therapy improved the condition compared to medical therapy alone.

Prof Keith Wheatley, who led the research at the University's Clinical Trials Unit (BCTU), says: "This study clearly illustrates that patients with renal artery stenosis remain at high risk. During the trial, a number of patients developed end-stage renal disease and needed dialysis or had a heart attack or stroke. Almost half of the patients had died by five years. More research is needed in this disease area to find more effective treatments."

Prof Jon Moss, radiology lead on the trial, said: "The results from the ASTRAL trial suggest that, in most patients, using this procedure for renal artery stenosis does not stabilise or improve kidney function. Given the risk of serious complications, it should be used less."

Prof Phil Kalra, nephrology lead on the trial, added: "What was also interesting was that there was an improvement in patients' blood pressure and a slower than expected decline of kidney function in both groups within the ASTRAL trial, which suggests that medical treatment for renovascular disease has got better over the years, which is good news".

Dr Morven Roberts, Medical Research Council Programme Manager, said: "Until now, a question mark has hung over whether revascularisation treatment for this condition really helps patients. Although it is disappointing that revascularisation didn't help, the ASTRAL trial is an important step forward in establishing what best clinical practice should be for patients with kidney disease."

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Notes to Editors

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Kidney Research UK

Founded in 1961, Kidney Research UK is the leading national charity funding research to save lives from kidney disease. This cutting edge research has always focused on the prevention, treatment and management of kidney disease. The charity also dedicates its work to patient care and educational initiatives. Our vision is to see a world free from kidney disease.

Further Media Information

Richard Gray (Director of BCTU) is available for interview, please contact Anna Mitchell on 0121 414 6029 / 07920 593946

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