

Renal denervation lowers blood pressure in hypertensive patients not taking medication

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Renal denervation lowers blood pressure in hypertensive patients not taking medication, according to late-breaking results from the SPYRAL HTN-OFF MED study presented today in a Hot Line LBCT Session at ESC Congress and published in *The Lancet*.

Renal denervation is a minimally invasive catheter-based procedure that delivers energy to the nerves in the kidneys that help regulate blood pressure. It was developed to treat resistant hypertension, which refers to high blood pressure that is not controlled by medication.

"The sham-controlled SYMPPLICITY HTN-3 trial failed to show a significant blood pressure lowering effect of [renal denervation](#)," said co-principal investigator Prof Michael Boehm, chairman, Department of Internal Medicine, University of Saarland in Homburg/Saar, Germany. "We applied lessons from this trial to the SPYRAL HTN-OFF MED study regarding how the procedure was performed, the patient population, and the influence of medications."

SPYRAL HTN-OFF MED is an international, multicentre, prospective, randomised, sham-controlled study designed to test the safety and blood pressure lowering efficacy of treatment with the multi-electrode Symplicity Spyral renal denervation system. The study included patients with [uncontrolled hypertension](#) who were drug naïve or stopped taking antihypertensive medications at least four weeks prior to randomisation.

Uncontrolled hypertension was defined as an office systolic blood

pressure between 150 and 180 mmHg and [diastolic blood pressure](#) more than 90 mmHg, and a 24-hour mean [systolic blood pressure](#) between 140 and 170 mmHg.

Patients were randomised to renal denervation in the main renal arteries and branches, or a sham procedure. Blood pressure was measured at baseline and three months, and compared within each treatment group.

Today researchers present three-month results of the first 80 patients, of whom 38 received renal denervation and 42 had a sham procedure. Compared to baseline, at three months after the procedure office-based systolic and diastolic blood pressure had declined by 10.0 mmHg (p

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