
Blast of Radio Waves Can Help Control High Blood Pressure



A new study, entitled 'Renal Sympathetic Denervation in Patients with Treatment-resistant Hypertension' (Symplicity HTN-2 Trial), published by the Lancet medical journal, shows that a short blast of radio waves to the kidneys selectively severs nerves that play a key role in regulating blood pressure.

Although still in the testing phase, experts say the procedure could help hundreds of thousands of patients, especially those who do not respond to medication. High blood pressure is an increasingly common condition; affecting around one in three adults in England and currently, half of patients fail to control their blood pressure control with drugs. This is partly as it can be difficult to remember to take the medication every day, but for up to a fifth of patients it is because the drugs simply have no effect.

Doctors led by Professor Murray Esler at the Baker IDI Heart and Diabetes Institute in Melbourne, Australia, have been testing the safety and effectiveness of the therapy. The Australian team, working with 24 centres across the globe, have tested the treatment in trials involving more than 100 patients. They found the therapy lowered blood pressure by about 10mmHg or more - which although is not enough to return blood pressure to a 'normal' level is enough to reduce some of the associated health risks of very high blood pressure.

To get to the kidneys, the doctors use a long, thin piece of tubing called a catheter that is threaded into an artery in the groin and guided up to the kidney. Once in place, the catheter is connected to a machine that generates radio waves, known as radiofrequency energy. In this way, a short burst from the machine can knock out a number of tiny nerves that run in the lining of the arteries of the kidney. By stopping these nerves from sending signals the treatment lowers blood pressure.

Commenting on the findings, Professor Jeremy Pearson of the British Heart Foundation said: "This trial opens up a potentially exciting new avenue for the treatment of patients with high blood pressure who do not respond well to current medicines. However, further studies are needed to see if this invasive procedure will be acceptable to patients and produce long-lasting effects that are safe and reduce future cardiovascular events."

Published on : Thu, 18 Nov 2010