

Canada's first renal denervation procedure to reduce high blood pressure performed today

January 17 2012

Doctors at the Peter Munk Cardiac Centre today performed a minimally invasive surgical procedure to treat high blood pressure, called renal denervation, for the first time in Canada. The procedure can significantly reduce high blood pressure in patients who cannot effectively treat their hypertension through drugs. These patients, numbering approximately 250,000 Canadians, have to endure an especially high risk of heart attacks and stroke, which continues to kill thousands of Canadians every year.

The first Canadian patient to undergo renal denervation, a 57-year-old male from Toronto, will be discharged tomorrow after overnight observation. The procedure was performed by a multi-disciplinary team, led by Dr. Dheeraj Rajan, [Interventional Radiology](#) Specialist; Dr. Douglas Ing, Cardiologist and Dr. George Oreopoulos, Vascular Surgeon. The team recently returned from Germany, where they trained for the procedure. Germany has approved the use of renal denervation to treat selected [patients](#) with hypertension.

The Peter Munk Cardiac Centre was the first centre in Canada to receive approval for renal denervation from Health Canada under the Special Access Program that allows practitioners to request access to procedures or drugs that are currently not otherwise approved for use in Canada. As the Health Canada web site notes: "This access is limited to patients with serious or life-threatening conditions on a compassionate or emergency basis when conventional therapies have failed, are unsuitable, or are unavailable."

Said Dr. Barry Rubin, Medical Director at the Peter Munk Cardiac Centre: "Decreasing a patient's [systolic blood pressure](#) from 160 to 130 mm Hg over a period of six months, which this procedure has been shown to do, could prevent many heart attacks and strokes from ever happening."

"In addition, renal denervation could also save the health care system countless millions of dollars by minimizing the need for anti-hypertension drugs that patients have to take, often for the rest of their lives, to say nothing of the millions more in savings from not having to treat heart attacks and strokes that don't happen."

The procedure was first used in patients in Melbourne, Australia, and its effects were reported in a clinical trial published in the December 4, 2010 issue of The Lancet. This trial saw cardiologists from Australia, New Zealand, the United Kingdom and several European countries deactivate the nerves located on the outside of the artery that feeds blood to the kidney, with a resulting drop in blood pressure. It has been known for over 50 years that the kidney plays a defining role in determining blood pressure.

Said Dr. Rubin: "Our multidisciplinary renal denervation program, which also includes hypertension and kidney specialists, will treat many more patients with hypertension in the months ahead. Our focus will be directed at studying the safety and efficacy of the procedure, which could also have important secondary benefits. For example, many Canadians with heart failure have [high blood pressure](#). Using renal denervation to treat high [blood pressure](#) in these patients could improve heart failure, a major cause of death of Canadians."

Provided by University Health Network

Citation: Canada's first renal denervation procedure to reduce high blood pressure performed today (2012, January 17) retrieved 13 July 2023 from <https://medicalxpress.com/news/2012-01-canada-renal-denervation-procedure-high.html>

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