Response to More Research Is Needed to Investigate the Effect of Denervation on Blood Pressure

Dr Wang1 calls for more research to investigate the blood pressure (BP)-lowering effects of renal denervation (RDN), and we agree with this recommendation. We clearly stated the need for additional randomized, controlled, clinical trials throughout our article.2

Dr Wang1 states that our article did not cite some studies that did not report a decrease in BP after RDN. Our article was not intended as an in-depth review of the available data on RDN but rather was an attempt to highlight the major unresolved questions about the procedure that need to be addressed in the near future. As pointed out by Dr Wang1 himself, 2 of the small studies he referred to that did not show a clear-cut BP response to RDN included ≤10 patients from single centers. Those results have to be weighed against a total of 259 patients included in the SYMPLICITY HTN-1 and HTN-2 studies, with follow-up as long as 3 years. Calculating responder rates and expressing them as a percentage in patient groups of <10 seems questionable to say the least. The recent years. Calculating responder rates and expressing them as a percentage in patient groups of <10 seems questionable to say the least. The recent

The recent report by Persu et al3 was not published at the time of submission of our article. This study, labeled a subject-level meta-analysis, included 109 patients with resistant hypertension recruited from 10 European centers that each applied different recruitment criteria and included data from patients treated with various RDN devices. Nevertheless, the reported response rate, defined as systolic BP reduction ≥10 mm Hg, was 72% in patients with baseline office systolic BP ≥160 mm Hg. Although this response rate is lower than the 84% reported in similar patients in SYMPLICITY HTN-2, it is still remarkable.

Although the Witkowski study did not report a significant reduction in ambulatory BP despite a reduction in office BP after RDN, that each applied different recruitment criteria and included data from patients treated with various RDN devices. Nevertheless, the reported response rate, defined as systolic BP reduction ≥10 mm Hg, was 72% in patients with baseline office systolic BP ≥160 mm Hg. Although this response rate is lower than the 84% reported in similar patients in SYMPLICITY HTN-2, it is still remarkable.

Data from the randomized controlled SYMPLICITY HTN-3 trial5 that includes a sham procedure and mandates ambulatory BP recordings are expected to be reported in March 2014 and will undoubtedly shed light on many of the areas discussed above.

Disclosures

M.P. Schlaich is supported by an NHMRC Research Fellowship and has received consulting fees, and/or travel and research support from Medtronic, Abbott, Novartis, Servier, Pfizer, and Boehringer-Ingelheim. M. Esler has received consulting fees and travel and research support from Medtronic and serves on the scientific advisory boards of Abbott Pharmaceuticals and Medtronic. G. Fink and J. Osborn have received consulting fees and travel support from Medtronic. D. Euler is a Medtronic contract employee.

Markus Schlaich
Murray Esler
Baker IDI Heart and Diabetes Institute
Melbourne, Australia

Greg Fink
Department of Pharmacology and Toxicology
Michigan State University
East Lansing

John Osborn
Department of Integrative Biology and Physiology
Lillehei Heart Institute
University of Minnesota
Minneapolis

David Euler
Medtronic, Vascular
Santa Rosa, CA

1. Wang Y. More research is needed to investigate the effect of denervation on blood pressure. Hypertension. 2014;63:e86.


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Markus Schlaich, Murray Esler, Greg Fink, John Osborn and David Euler

Hypertension. 2014;63:e86; originally published online February 17, 2014; doi: 10.1161/HYPERTENSIONAHA.114.03055

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