

Letters to the Editor

Comment on the Management of Resistant Hypertension in a Multidisciplinary Unit of Renal Denervation: Protocol and Results

Comentario al manejo de la hipertensión resistente en una unidad multidisciplinaria de denervación renal: protocolo y resultados

To the Editor,

I have read with great interest the article entitled “Management of Resistant Hypertension in a Multidisciplinary Unit of Renal Denervation: Protocol and Results” (“*Manejo de la hipertensión resistente en una unidad multidisciplinaria de denervación renal: protocolo y resultados*”), in which the authors report an improvement in arterial blood pressure similar to that observed in previous studies, as well as a more marked reduction in the use of antihypertensive drugs in patients who undergo renal denervation performed within a multidisciplinary program.¹ The reported findings are highly interesting; however, I feel that certain observations could be clinically relevant.

First, the authors consider pseudoresistant hypertension (HT) to be present in patients with mean arterial blood pressure values of less than 140/90 mmHg coinciding with a period of activity occurring during ambulatory blood pressure monitoring (ABPM). However, in the current recommendations, HT is defined as arterial blood pressure values greater than 130-135/85 mmHg in an ABPM recording during the period of activity.² Thus, HT in which the patients have a mean arterial blood pressure in ABPM greater than 130-135/85 mmHg cannot be considered pseudoresistant. This bias in the inclusion of patients with resistant HT may have affected the observed findings.

Secondly, it is noteworthy that, despite the definition of resistant HT as the condition in which the arterial blood pressure values exceed 140/90 mmHg even with the intake of 3 or more drugs, including a diuretic,³ 10% of the patients in the published report who underwent the procedure were not being treated with diuretics, and the percentage of subjects receiving diuretics after renal denervation is not disclosed. The pharmacological optimization of these patients in later visits may have altered the reported findings.

Finally, the authors administer aldosterone antagonists to counteract possible secondary hyperaldosteronism. However, my attention is drawn to the absence of staging of other secondary forms of HT, especially when it is known that 27% of the population that

undergoes the procedure is diagnosed as having obstructive sleep apnea syndrome. In fact, as the authors point out, there could be a placebo effect in the response to the denervation, an occurrence that would not only be related to greater adherence to the treatment or to the low-sodium diet, but to an improvement in the obstructive sleep apnea syndrome with better dietary adherence. Likewise, drug-induced HT was not tested in the study population, a circumstance that could also influence the results obtained.

In agreement with the authors and the Symplicity HTN-2 trial,⁴ renal denervation results in a decrease in the arterial blood pressure and a reduction in the drug therapy. However, an exhaustive search for secondary forms of HT and an optimization of drug therapy could avoid the need for the renal denervation procedure which, although it has been shown to be feasible and safe, is not free of complications.

Juan C. Bonaque*

Servicio de Cardiología, Hospital Torrecárdenas, Almería, Spain

*Corresponding author:

E-mail address: jc_bonaque@hotmail.es

Available online 24 July 2013

REFERENCES

1. Fontenla A, García Donaire JA, Hernández F, Segura J, Salgado R, Cerezo C, et al. Manejo de la hipertensión resistente en una unidad multidisciplinaria de denervación renal: protocolo y resultados. *Rev Esp Cardiol*. 2013;66:364–70.
2. Mancia G, De Backer G, Dominiczak A, Cifkova R, Fagard R, Germano G, et al. 2007 Guidelines for the Management of Arterial Hypertension: The Task Force for the Management of Arterial Hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). *J Hypertens*. 2007;25:1105–87.
3. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo Jr JL, et al. Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *Hypertension*. 2003;42:1206–52.
4. Esler MD, Krum H, Sobotka PA, Schlaich MP, Schmieder RE, Böhm M. Renal sympathetic denervation in patients with treatment-resistant hypertension (the Symplicity HTN-2 Trial): a randomised controlled trial. *Lancet*. 2010;376:1903–9.

SEE RELATED ARTICLES:

<http://dx.doi.org/10.1016/j.rec.2013.06.003>

<http://dx.doi.org/10.1016/j.rec.2012.09.006>

<http://dx.doi.org/10.1016/j.rec.2013.05.014>

Comment on the Management of Resistant Hypertension in a Multidisciplinary Unit of Renal Denervation: Protocol and Results. Response

Comentario al manejo de la hipertensión resistente en una unidad multidisciplinaria de denervación renal: protocolo y resultados. Respuesta

To the Editor,

The authors of the article entitled “Management of resistant hypertension in a multidisciplinary renal denervation unit: protocol and results”¹ thank Dr. Bonaque for his interest in our

work. The observations made on our study are highly relevant but require some comment.

Indeed, hypertension is defined in current guidelines as arterial blood pressure values >130-135/85 mmHg in an ambulatory blood pressure monitoring recording during a period of activity.² From a conceptual point of view, establishing this cutoff to select candidates for renal denervation would be as incorrect as including patients with blood pressure of \geq 140/90 mmHg in the office setting, the definition of hypertension in the same guidelines. The cut-off to indicate renal denervation should not only include the “presence of hypertension” but also “poor control”. Hence, in the Symplicity-HTN2 trial,³ the cutoff was an office systolic pressure of 160 mmHg and, in our study, an ambulatory