

Letter to the Editor

Renal Denervation: The Irish experience

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I have read with great interest a paper authored by Dr. Kyvelou and colleagues published in this journal.¹ This paper reported the Irish experience in renal denervation. In 24 patients with resistant hypertension who had completed 6-month follow-up after renal denervation, office systolic blood pressure was decreased by 6 mmHg (from 165 mmHg at baseline to 159 mmHg at 6 months, $p=0.03$), and 24-hour ambulatory systolic blood pressure was decreased by 4 mmHg (from 150 mmHg at baseline to 146 mmHg at 6 months, $p=0.003$). However, whether the reduction in systolic blood pressure of 4-6 mm Hg is better than placebo needs to be further investigated. The randomised Symplicity HTN-2 study showed that the 24-hour ambulatory systolic blood pressure was decreased by 3 mmHg in the control patients.² In 14 randomised, double-blinded, placebo-controlled antihypertensive drug trials,³ the change in office systolic blood pressure in the placebo patients varied from a decrease of 11.0 mmHg to an increase of 2.1 mmHg, and the change in ambulatory systolic blood pressure varied from a decrease of 8 mmHg to an increase of 2.3 mmHg. In addition, renal denervation may have some long-term side effects. For example, the 3-year report of the Symplicity HTN-1 study indicated that renal denervation may decrease renal function, which was supported by a decrease in estimated glomerular filtration rate ($p=0.05$) and an increase in the creatinine concentrations in the serum ($p=0.05$) at 3-year follow-up.⁴ Therefore, the report of the Irish experience

in renal denervation further highlighted the need to investigate the long-term effect of renal denervation on disease outcomes.

The individual response of blood pressure to renal denervation is reported to be highly variable. For example, in 109 patients from 10 European expert centres,⁵ the non-responder rate (a decrease in office systolic blood pressure of <10 mmHg) was 40%, while in 22.9% of patients, office systolic blood pressure was increased after renal denervation. Therefore, it would be more informative if Dr. Kyvelou could provide information on the non-responder rate and the percentage of patients whose blood pressure was increased. This may further highlight the need for future research to investigate the predictors of blood pressure response to renal denervation, which will therefore minimise the possible harm caused by renal denervation to the non-responders.

References

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