Letter to the Editor

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Letter by Wang Regarding Article, “Renal Denervation for the Treatment of Cardiovascular High Risk-Hypertension or Beyond?”

To the Editor:

In their article titled “Renal denervation for the treatment of cardiovascular high risk-hypertension or beyond?” Böhm et al¹ presented an excellent overview on renal denervation and its clinical indications. The authors emphasized the blood pressure-lowering effect of renal denervation. However, they did not cite a number of studies in which renal denervation did not lower office blood pressure² or 24-hour ambulatory blood pressure.^{3–6} These uncited articles^{2–6} and the recently published Symplicity HTN-3 trial⁷ clearly indicate that renal denervation does not lower blood pressure in every patient. The long-term safety of renal denervation has not been well established.⁸ Therefore, I agree with the authors’ opinion that renal denervation should only be performed in patients with resistant hypertension as ultima ratio, which was first suggested by Persu et al in 2012.⁹ However, Böhm et al¹ also suggested further investigating whether pseudoresistant hypertension is also a target for renal denervation. This suggestion seems not appropriate, because (1) this suggestion is against the consensus that renal denervation should be only used as ultima ratio and (2) a recent study has shown that pseudohypertension is not a risk factor if the patients are pharmaceutically treated.¹⁰ Therefore, applying renal denervation to patients with pseudoresistant hypertension is not well justified.

Another point overlooked by the authors is that blood pressure in a large number of patients with resistant hypertension could be controlled by adjusting antihypertensive drugs. A recent study,¹¹ in which 19 patients with resistant hypertension were randomized to adjusted drug treatment (n=10) and renal denervation (n=9), showed that adjusted drug treatment significantly decreased ambulatory blood pressure from 152/88 mmHg at baseline to 133/77 mmHg at 6 months. Renal denervation decreased ambulatory blood pressure from 152/93 mmHg at baseline to 142/86 mmHg at 6 months, being inferior to adjusted drug treatment. In addition, ambulatory systolic blood pressure was decreased below 135 mmHg in 7 of the 10 patients by adjusting antihypertensive drugs.¹¹ This study,¹¹ for the first time, demonstrated that a large number of patients who are currently thought to have true resistant hypertension could be effectively treated by adjusting drugs. Therefore, adjusted drug treatment is highly recommended before renal denervation.

In summary, renal denervation should be offered to patients with resistant hypertension as ultima ratio.⁹ Therefore, applying renal denervation to patients with pseudoresistant hypertension is not well justified, and adjusted drug treatment is highly recommended before renal denervation.

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Disclosures

None.

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