



Introduction to focused issue on endocrine-related hypertension

Endocrine disorders leading to hypertension can originate from a number of organ systems. Once considered rare, increasing recognition of endocrine causes of hypertension as significant contributors to cardiovascular, renal, neurologic, and other morbidities and mortality merits increased education of health care providers for timely diagnosis and treatment.

In 1991, the prevalence of hypertension was 24%; non-Hispanic blacks had the highest prevalence of hypertension (28.4%) and Mexican-Americans had the lowest prevalence (14.3%) (1). The Centers for Disease Control reported a similar prevalence of hypertension in 2017 with an overall rate of 29%, again higher among non-Hispanic blacks (40.3%) than non-Hispanic white (27.8%), non-Hispanic Asian (25.0%), or Hispanic (27.8%) adults (2). The prevalence of hypertension increases with age (7.5% age 18–39, 33.2% age 40–59, 63.1% age >60). This is important given that the number of Americans over the age of 60 is at an all-time high and is expected to continue to grow. Among adults with hypertension, hypertension control increased from 1999–2000 to 2009–2010 and then did not significantly change through 2015–2016. Currently, just less than one-half of adults with hypertension have their hypertension under control (48.3%) (2).

Endocrine disorders are estimated to cause hypertension in 5–10% of patients with hypertension. In patients seen in specialty hypertension clinics with hypertension refractory to treatment, 20% of patients may have an endocrine cause for hypertension. Most patients with endocrine-related hypertension are diagnosed when disease is overt, end-organ damage has occurred, and/or hospitalization has been required as a result of adverse sequelae. More recently, the recognition of sub-clinical states of these endocrine disease processes provides a chance to curtail long-term irreversible effects of hypertension and other sequelae. Genetic mechanisms, both germline and those arising within tumors can impact the prevalence, phenotype and racial distribution among populations. This is best illustrated in patients with primary aldosteronism.

With earlier consideration of endocrine causes of hypertension and effective screening, patients with medically or surgically remediable causes can be identified earlier, minimizing adverse end-organ effects and risks for downstream comorbidities and mortality. Treatment of biochemically evident yet sub-clinical in presentation will be an area of intensive investigation in the near future.

Herein, experts in the field explore the medical and surgical evaluation and management of disorders leading to endocrine-related hypertension.

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References

1. Burt VL, Whelton P, Roccella EJ, et al. Prevalence of hypertension in the US adult population. Results from the Third National Health and Nutrition Examination Survey, 1988-1991. *Hypertension* 1995;25:305-13.
2. Fryar CD, Ostchega Y, Hales CM, et al. Hypertension Prevalence and Control Among Adults: United States, 2015-2016. NCHS Data Brief No. 289, October 2017. Available online: <https://www.cdc.gov/nchs/products/databriefs/db289.htm>. Accessed 11/11/2019.



Tracy S. Wang



Barbra S. Miller

Tracy S. Wang, MD, MPH

Professor of Surgery, Vice-Chair of Strategic and Professional Development, Division of Surgical Oncology, Section of Endocrine Surgery, Medical College of Wisconsin, Milwaukee, WI, USA. (Email: tswang@mcw.edu)

Barbra S. Miller, MD

Associate Professor, Department of Surgery, University of Michigan, Ann Arbor, MI, USA. (Email: barbram@med.umich.edu)

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