

Primary Aldosteronism: More Common Than Previously Reported

Many diagnoses are missed using serum aldosterone and renin levels alone.

Guideline-recommended screening for primary aldosteronism in patients with resistant hypertension usually is accomplished by measuring serum aldosterone-renin ratio (ARR); however, screening rates are very low, and ARR might have low sensitivity for disease detection (*J Clin Endocrinol Metab* 2016; 101:1889). Using a cross-sectional study design, investigators evaluated more than 1000 patients from four geographically diverse U.S. sites. All participants underwent an oral sodium-load protocol at least 2 weeks after withdrawal of all antihypertensive medications for most patients (some medications were continued in patients with resistant hypertension at one site). Two thirds of patients had adequate suppression of renin to assess renin-independent aldosterone production.

Using 24-hour urinary aldosterone excretion (the gold standard for diagnosing primary aldosteronism) and a conventional cutoff of 12 µg, prevalence of primary aldosteronism among patients with normotension, stage 1 hypertension, stage 2 hypertension, and resistant hypertension was 11%, 16%, 22%, and 22% respectively. The sensitivity of serum ARR to exclude primary aldosteronism accurately was only 32% across all hypertension stages.

COMMENT

According to an editorialist, this study is a “game changer” in demonstrating a three- to fivefold higher prevalence of primary aldosteronism in hypertensive patients than previously recognized. A high proportion of cases likely are missed by currently recommended serum screening methods using ARR and aldosterone levels, contributing to underdiagnosis. Screening more hypertensive patients for primary aldosteronism, and changing screening methods, could identify many patients who might benefit from aldosterone-targeted therapeutic interventions.

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Brown JM et al. *The unrecognized prevalence of primary aldosteronism: A cross-sectional study.* **Ann Intern Med** 2020 May 26; [e-pub]. (<https://doi.org/10.7326/M20-0065>)

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