Endocrine Society experts call for expanded screening for primary aldosteronism

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The Endocrine Society today issued a Clinical Practice Guideline calling on physicians to ramp up screening for primary aldosteronism, a common cause of high blood pressure.

People with primary aldosteronism face a higher risk of developing cardiovascular disease and dying from it than other people with high blood pressure. As many as one in ten people with high blood pressure may have primary aldosteronism. Uncontrolled high blood pressure can put these individuals at risk for stroke, heart attack, heart failure or kidney failure.

The guideline, entitled "The Management of Primary Aldosteronism: Case Detection, Diagnosis, and Treatment: An Endocrine Society Clinical Practice Guideline," was published online and will appear in the May 2016 print issue of *The Journal of Clinical Endocrinology & Metabolism (JCEM)*, a publication of the Endocrine Society. The guideline updates recommendations from the Society's 2008 guideline on primary aldosteronism.

"In the past eight years, we have come to recognize that primary aldosteronism, despite being quite common, frequently goes undiagnosed and untreated," said John W. Funder, MD, PhD, of the Hudson Institute of Medical Research in Clayton, Australia, and chair of the task force that authored the guideline. "This is a major public health issue. Many people with primary aldosteronism are never screened due to the associated costs. Better screening processes are needed to ensure no person suffering from primary aldosteronism and the resulting risks of uncontrolled high blood pressure goes untreated."

Primary aldosteronism occurs when the adrenal glands—the small glands located on the top of each kidney - produce too much of the hormone aldosterone. This causes aldosterone, which helps balance levels of sodium and potassium, to build up in the body. The resulting excess sodium can lead to a rise in blood pressure.

The Endocrine Society recommends primary aldosterone screening for people who meet one of the following criteria:

- Those who have sustained blood pressure above 150/100 in three separate measurements taken on different days;
- People who have hypertension resistant to three conventional antihypertensive drugs;
- People whose hypertension is controlled with four or more medications;
- People with hypertension and low levels of potassium in the blood;
- Those who have hypertension and a mass on the adrenal gland called an adrenal incidentaloma;
- People with both hypertension and sleep apnea;
- People with hypertension and a family history of early-onset hypertension or stroke before age 40; and
- All hypertensive first-degree relatives of patients with primary aldosteronism.

Other recommendations from the guideline include:

- The plasma aldosterone-to-renin ratio (ARR) test should be used to screen for primary aldosteronism.
- All patients diagnosed with primary aldosteronism should undergo a CT scan of the adrenal glands to screen for a rare cancer called adrenocortical carcinoma.
- When patients choose to treat the condition by having one adrenal gland surgically removed, an experienced radiologist should take blood samples from each adrenal vein and have them analyzed. This procedure, called adrenal vein sampling, is the gold standard for determining whether one or both adrenal glands is producing excess aldosterone.

- For people with primary aldosteronism caused by overactivity in one adrenal gland, the recommended course of treatment is minimally invasive surgery to remove that adrenal gland.
- For patients who are unable or unwilling to have surgery, medical treatment including a mineralocorticoid receptor (MR) agonist is the preferred treatment option.

More information: John W. Funder et al, The Management of Primary Aldosteronism: Case Detection, Diagnosis, and Treatment: An Endocrine Society Clinical Practice Guideline, *The Journal of Clinical Endocrinology & Metabolism* (2016). DOI: 10.1210/jc.2015-4061

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