Myths Connect Hypertension and Headaches

BY SHERRY BOSCHERT

San Francisco — Hypertension causes headaches. Treating hypertension decreases headaches. Headaches increase the risk for stroke and heart disease.

Really? Not quite, Dr. Daara J. Jamieson, president of the American Society of Hypertension. The reality is much more nuanced.

► Acute headache can cause headache in some cases, but chronic hypertension does not.
► Treating chronic hypertension possibly decreases, and treating acute headache can decrease headaches in some cases.
► General headaches or migraines with or without aura also increase for stroke or heart disease, but risks for these cardiovascual problems are increased in patients who get migraines with aura, especially in women, said Dr. Jamieson of Cornell University, Ithaca, N.Y.

She described in more detail the scenarios that clinicians need to think about in the interface between hypertension and headaches.

► Hypertension causing headaches. A common misconception for stroke or heart disease (especially among patients) that hypertension caus- es headaches derives from long-standing misinterpretations of a 1913 study of 870 hypertensive patients (Arch. Intern. Med. 1913;12:755-98), she said. Epi-

demiologic studies in the 1980s and 1990s, however, found that baseline blood pressure measurements in 22,685 adults were not associated with the risk for headaches (including migraines). On the contrary, blood pressure and pulse pressures were associated with a reduced risk of headaches.

Unlike chronic hypertension, acute hypertension can cause headaches in specific circumstances, the most common being pheochromocytoma, which presents with headache in up to 80% of cases as part of a complex of symptoms.

A recurrent, short-lasting headache has been linked with transient, paroxysmal elevations in blood pressure in patients without underlying causes of pheochromocytoma. This type of headache is thought to be caused by chronic baroreceptor failure. It is seen mainly in patients who have had radiation therapy to the neck, carotid endarterectomies, or radial neck dissections, and it responds to chronic blood pressure lowering with a blood pressure of 150/90 mm Hg or less.

► Hypertension plus headache. A patient with a sudden-onset neurologic deficit with some degree of headache may be having an intracerebral hemorrhage or ischemic stroke. In this case, blood pressure elevation will be out of proportion to the headache.

In comparison, someone with an acute thunderclcler header and less dramatic elevation in blood pressure is more likely to be having a subarachnoid hemorrhage.

Headache can be caused by acute elevation in blood pressure due to hypertensive encephalopathy, preeclampsia, eclampsia, HELLP syndrome (hemoly-

sis, elevated liver enzymes, and low platelet count), or posterior reversible encephalopathy syndrome (PRES), Dr. Jamieson said. Physicians should quickly recognize and aggressively treat PRES, which has a diverse presentation and can be deadly if untreated.

► Treating hypertension. A meta-analy-
sis of 94 trials suggested that all classes of antihypertensive drugs reduce the preva-

cence of headache, but the analysis did not address the causes of headaches (Circulation 2005;112:2301-6). Some antihypertensive drugs can cause headache, especially nitric oxide donors including amyl nitrate, isosorbide, nitroglycerin, and sodium nitroprusside.

► Stroke and heart disease. In the 10-year Women's Health Study, migraine with aura was associated with an increased risk for ischemic stroke, MI, car-

diac revascularization, and angina. An as-

sociation was not so clear for men in the 16-year Physicians' Health Study, which did not differentiate between migraines with or without aura. Migraine was associated with increased risk for MI, in-

creased risk for ischemic stroke in men aged 40-54 years, and no increased risk for angina or revascularization.

She has been a speaker or consultant for Merck & Co., Inc., Boehringer Ingelheim, and Bayer, which make medications for headaches and/or hypertension.

HUMALOG® INJECTABLE INSULIN LIPOPORE INJECTION (U-100) INDICATIONS AND USAGE: External Insulin Pumps—Use in an External Insulin Pump—Hypertension is not a contraindication to the use of Humalog in external insulin pumps. Treating hypertension in combination with some antihypertensive drugs, and a new site selected. If systemic blood pressure increases to levels threatening blood pressure measurements in 22,685 hypertensive patients (Arch. Intern. Med. 1913;12:755-98), she said. Epidemiologic studies in the 1980s and 1990s, however, found that baseline blood pressure measurements in 22,685 adults were not associated with the risk for headaches (including migraines). On the contrary, blood pressure and pulse pressures were associated with a reduced risk of headaches.

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