

Hypertensive patients benefit from acupuncture treatments, study finds

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UCI researchers have found that electroacupuncture – a form of acupuncture that employs low-intensity electrical stimulation – can reduce high blood pressure in hypertensive patients for up to six weeks. Credit: Chris Nugent / UCI

Patients with hypertension treated with acupuncture experienced drops in their blood pressure that lasted up to a month and a half, researchers



with the Susan Samueli Center for Integrative Medicine have found.

Their work is the first to scientifically confirm that this ancient Chinese practice is beneficial in treating mild to moderate hypertension, and it indicates that regular use could help people control their <u>blood pressure</u> and lessen their risk of stroke and heart disease.

"This clinical study is the culmination of more than a decade of bench research in this area," said Dr. John Longhurst, a University of California, Irvine cardiologist and former director of the Samueli Center. "By using Western scientific rigor to validate an ancient Eastern therapy, we feel we have integrated Chinese and Western medicine and provided a beneficial guideline for treating a disease that affects millions in the U.S."

Longhurst and his UCI colleagues Dr. Peng Li and Stephanie Tjen-A-Looi conducted tests on 65 hypertensive patients who were not receiving any hypertension medication. Separated randomly into two groups, the subjects were treated with electroacupuncture – a form of the practice that employs low-intensity electrical stimulation – at different acupoints on the body.

In one group of 33 receiving electroacupuncture on both sides of the inner wrists and slightly below each knee, the researchers found a noticeable drop in blood pressure rates in 70 percent of participants – an average of 6 to 8 mmHg for systolic blood pressure (the high number) and 4 mmHg for diastolic blood pressure (the low number). These improvements persisted for a month and a half.

Also in this group, the team identified significant declines in blood concentration levels of norepinephrine (41 percent), which constricts blood vessels and increases blood pressure and glucose levels; and renin (67 percent), an enzyme produced in the kidneys that helps control blood



pressure. In addition, the electroacupuncture decreased aldosterone (22 percent), a hormone that regulates electrolytes.

No consequential blood pressure changes were found in the group of 32 who received electroacupuncture at other acupoints along the forearm and lower leg.

Although the blood pressure reductions in the first cohort were relatively small – mostly in the 4-to-13-mmHg range – the researchers noted that they were clinically meaningful and that the technique could be especially useful in treating systolic hypertension in patients over 60.

"Because electroacupuncture decreases both peak and average <u>systolic</u> <u>blood pressure</u> over 24 hours, this therapy may decrease the risk for stroke, peripheral artery disease, heart failure and myocardial infarction in hypertensive patients," Longhurst said.

Participants were treated at UCI's Institute for Clinical & Translational Science. Study results appear in *Medical Acupuncture*.

More information: *Medical Acupuncture*, online.liebertpub.com/doi/full ... 0.1089/acu.2015.1106

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