



AMERICAN
COLLEGE of
CARDIOLOGY

CSPPT: Folic Acid With Enalapril Reduces First Occurrence of Stroke in Hypertension Patients

Mar 15, 2015

ACC News Story

Patients with hypertension who received enalapril along with folic acid are significantly less likely to experience a stroke than those who receive enalapril alone, according to the China Stroke Primary Prevention Trial (CSPPT) published in the _____ and presented on Sunday, March 15 as part of ACC.15 in San Diego, CA.

This 1:1 randomized, double-blind study looked at 20,702 adults from two provinces in China, with hypertension, varying levels of folate and without a history of stroke or heart attack. Patients were divided into two groups and were randomly selected to receive daily enalapril (10mg) and folic acid (0.8 mg) or 10mg of enalapril alone. The study also tested for variations in the C677T gene (CC, CT and TT genotypes) that could potentially affect folate levels in participants.

After four and a half years, the first stroke occurred in only 2.7 percent of patients that received folic acid and enalapril versus the 3.4 percent occurrence of first stroke in those who received enalapril alone, representing a relative risk reduction of 21 percent. The risk of ischemic stroke and other cardiac events in the folic acid-enalapril group was also lowered significantly. Folic-enalapril group patients who started with low folate levels saw the greatest benefits.

"The CSPPT is the first large-scale randomized trial to test the hypothesis using individual measures of baseline folate levels," said Hou. "In this population without folic acid fortification, we observed considerable individual variation in plasma folate levels and clearly showed that the beneficial effect appeared to be more pronounced in participants with lower folate levels."

He added, "We speculate that even in countries with folic acid fortification and widespread use of folic acid supplements such as in the United States and Canada, there may still be room to further reduce stroke incidence using more targeted folic acid therapy—in particular, among those with the TT genotype and low or moderate folate levels."

Share via: [!\[\]\(3dfb8d66e81160ad61421a3452093d1b_img.jpg\)](#) [!\[\]\(21ece2018b00c7267b3324c50bbed633_img.jpg\)](#) [!\[\]\(074da87f0b7a74793bdf823413604aae_img.jpg\)](#) [!\[\]\(e3dcb983f6af01f6fe3b18e0a7169676_img.jpg\)](#) [!\[\]\(64236d586c7572d933ce39c4de709b6e_img.jpg\)](#)

Clinical Topics: Prevention, Nonstatins, Diet, Hypertension

Keywords: *Cardiovascular Meetings, Adult, China, Dietary Supplements, Double-Blind Method, Enalapril, Folic Acid, Genotype, Humans, Hypertension, Incidence, Male, Myocardial Infarction, Primary Prevention, Risk, Stroke, United States*

© 2018 American College of Cardiology Foundation. All rights reserved.