Folic acid reduces risk of first stroke in people with hypertension

By ACSH Staff — March 16, 2015

High blood pressure, or hypertension (HTN), is one of the leading risk factors for stroke, and there are many drugs available to help control this problem. However, researchers continue to investigate further means to lower the chances of hypertensive patients having a stroke, which is often a devastating (or fatal) event. A recent Chinese study suggests that adding the B vitamin folic acid (or folate) to an anti-HTN drug regimen may help prevent stroke in individuals who have not yet experienced a stroke (i.e., primary prevention). Their rationale for pursuing this line of investigation was that previous research had suggested a benefit from folic acid supplementation in stroke prevention.

Lead author Yong Huo, MD from the Department of Cardiology, Peking University First Hospital, Beijing, China and colleagues enrolled over 14,000 men and women between 45 and 75 years old and included people from 32 communities in two Chinese provinces in their study of folate supplementation. All participants had a history of HTN; none had experienced either a stroke or heart attack (MI) before beginning the study, which began in 2008 and lasted until 2013. Participants were randomly assigned to receive either a daily dose of the ACE-inhibitor enalapril (sold in the US as Vasotec) for blood pressure control, either alone or combined with folic acid. They were followed to see if they experienced a stroke or MI during the study period.

During the follow-up period of about five years, the researchers found that the group receiving the combination of enalapril-folic acid had a 21 percent reduced risk of first stroke compared to the group taking enalapril alone, at least with respect to ischemic strokes (strokes occurring because of occlusive blockages in any artery in or leading to the brain). The combination treatment did not affect the risk of either MI or hemorrhagic stroke (strokes caused by bleeding within the brain).

These results are especially important in China where, according to the authors, stroke is the leading cause of death, and is the second leading cause of death in the world. In their conclusions, the authors noted that the dose of folic acid they used was optimal for a particular genotype.
related to folic acid metabolism, and may not be the best one for everyone.

ACSH’s Dr. Ruth Kava commented The results of this large, well-controlled, randomly assigned study are important for HTN treatment. Whether or not the results in this Chinese population can be generalized to other groups remains to be determined especially with respect to populations that already have high baseline levels of folic acid. It will be interesting and important to see what further investigations reveal about the value of folic acid in stroke prevention.


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