

New Clinical Trial Identifies Patients at Risk of Second Stroke



A six-year, multi-centre trial has found that the risk of recurrent stroke is higher in patients who have low blood flow to the back of the brain. The results of the National Institutes of Health-sponsored Vertebrobasilar Flow Evaluation and Risk of Transient Ischemic Attack and STROKE (VERiTAS) trial were presented at the International Stroke Conference in Nashville, Tennessee.

Patients suffering from vertebrobasilar disease (VBD) are at risk of having a stroke or a transient ischemic attack. TIA's account for 30 percent to 40 percent of all ischemic strokes. There are several factors that increase the risk of a repeat stroke in patients with VBD. They can have partial to complete blockage which could affect their blood flow or they can have normal blood flow to the back of the brain.

This trial was conducted to identify patients with VBD and low blood flow and determine if they were at a higher risk of recurrent stroke than those with normal blood flow to the back of the brain. Approximately one quarter of the patients enrolled in the trial had low posterior blood flow. Patients were enrolled in five study sites and were assessed for low posterior blood flow and followed for one to two years.

The findings showed that patients with low blood flow had a 22 percent risk of recurrent stroke in the first 12 months as compared to only a 4 percent risk in patients whose blood flow was not low. The risk increased up to 30 percent at 24 months in patients with low blood flow as compared to 13 percent for the other patients.

According to Dr. Sepideh Amin-Hanjani, professor of neurological surgery at the UIC College of Medicine and principal investigator on the study, "The ultimate goal is to find what treatments might be most effective for each patient. If you can establish that there is a proportion of people who have reduced blood flow, then you can consider them for treatments that might actually increase it—for example, [by] surgery or stents or other procedures that might open up the blood vessels."

The patients were identified through the NOVA technology, a computer based system that helps visualise brain anatomy and quantify blood flow. The technology has been developed at UIC by Dr. Fady Carbel, Professor and Head of Neurological Surgery.

Dr. Hanjani points out that the biggest advantage of using this technique is that it is widely available and can make it easy to identify the high-risk patients so that their condition can be treated more effectively.

Source: University of Illinois at Chicago Image Credit: Wikimedia Commons Published on: Tue, 17 Feb 2015