

## **Clogged veins don't cause MS, study finds Moneyville 04/14/2011**

Clogged neck veins that restrict blood flow from the brain are not the cause of multiple sclerosis, but rather a result of the debilitating disease, new U.S. research suggests.

The University of Buffalo study, the largest to investigate whether vein blockages cause MS, casts doubt on the theory embraced by patients around the world. Neurologists say the findings provide crucial insight into their understanding of the proposed link between chronic cerebrospinal venous insufficiency (CCSVI) and MS, but do not provide a definitive answer on the provocative theory.

Since first proposed by an Italian researcher in 2009, patients desperate for relief have undergone operations to open up their neck veins, many becoming passionate supporters of the so-called liberation treatment. Neurologists, meanwhile, have largely cautioned against the rush to surgery until more research is done.

The findings, published online Wednesday in *Neurology*, the journal of the American Academy of Neurology, “point against CCSVI having a primary causative roll in the development of MS.” Lead author Dr. Robert Zivadinov, associate professor of neurology at the University of Buffalo School of Medicine and Biomedical Sciences, said the study revealed CCSVI was not unique to MS.

Of the study’s 499 participants, 56 per cent of patients with MS met the criteria for CCSVI, as did 46 per cent of subjects with other neurological diseases and 23 per cent of healthy people acting as controls.

“That means subjects with other diseases and healthy people may also have CCSVI, which means it is probably not unique just to MS and is not the cause,” said Zivadinov, who is also president of the International Society for Neurovascular Disease.

Dr. Peter Stys, a professor of clinical neuroscience and an MS researcher at the University of Calgary, said the findings show CCSVI may be a response from the way veins have drained over the years from a brain inflamed by MS and other neuroinflammatory diseases.

“Importantly, CCSVI is no more the cause of MS than a swollen ankle is the cause of the underlying fractured bone,” Stys said. “Therefore, stenting veins in CCSVI will not cure MS any more than icing the ankle will somehow fix the fractured bone.”

The study also found the prevalence of CCSVI was different depending on a patient’s stage of the disease. About 38 per cent of patients in the early stage of MS presented with CCSVI, while 80 to 90 per cent of patients in progressive stages had the condition, said Zivadinov.

Authors of an accompanying editorial said the increased prevalence of CCSVI in patients with progressive stages of the disease “leaves open the possibility that CCSVI may be playing a contributory role in, or be a consequence of, the disease, or may be age-related.”

Zivadinov said a number of factors, including a patient becoming less mobile and having to use a wheelchair, could be the reason why those with advanced MS are more likely to have CCSVI. “We can point to a number of different factors that could point to closure of the veins, but we don’t have an answer,” he said. “Our message on CCSVI is definitely we should proceed to understand why people who have progressive forms have much more prevalence of this phenomenon.”

In 2009, Dr. Paolo Zamboni postulated that clogged neck veins could trigger multiple sclerosis by causing iron to flow up to the brain. That same year, Zamboni published results that suggested the relatively simple procedure to unclog veins, called venous angioplasty procedure — dubbed “the liberation therapy” — held promise to relieve the debilitating symptoms of MS.

Dr. Anthony Traboulsee, a neurologist at the UBC Hospital MS Clinic, said the University of Buffalo study neither proves nor disproves the CCSVI theory.

“It illustrates the importance of independent work on any new theory,” he said in an email. “It raises important questions about earlier reports that showed every patient with MS has CCSVI compared to a complete absence in the normal population.”

Traboulsee cautioned that CCSVI studies conducted with ultrasound, including the original Italian and the recent Buffalo study, are difficult to do well because results can be affected by the timing, angle and position of the patient and probe. Results of the well-designed studies sponsored by the Multiple Sclerosis Society of Canada take into account those difficulties and are expected as early as this fall, he said.