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Research casts doubt on new MS theory

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Research released yesterday has further complicated a feverish scientific debate over the treatment of multiple sclerosis, finding that as few as 56% of MS patients show signs of a blood-vessel problem that a controversial new theory cites as the cause of the disease.

Researchers also identified the blood problem in about a quarter of healthy people tested.

The University of Buffalo scientist who headed the study acknowledged the findings cast some doubt on the suggestion that a narrowing in neck veins helps trigger MS, although he says it clearly shows there is a significant link between the two.

The cause-and-effect relationship is argued by an Italian vascular surgeon, Dr. Paolo Zamboni, whose ideas have thrown the MS world into an uproar, pitting hopeful patients against skeptical neurologists.

Dr. Robert Zivadinov said that, based on his new findings, there is no justification for patients to undergo a vein-opening operation developed by the Italian surgeon or other, similar "endovascular" treatments until further studies indicate they are useful.

"I do not recommend any procedure at this time. I think we first need to understand the diagnostic issues," said Dr. Zivadinov, who is working closely with the Italian surgeon.

"We don't know whether the endovascular treatment is helping or not."

The Buffalo neurology professor did say that his results should be encouragement for more research into the connection between MS and the vein narrowing problem that Dr. Zamboni dubbed chronic cerebrospinal venous insufficiency (CCSVI).

MS specialists who have questioned the hypothesis, though, suggested the new findings call into question much of what the Italian physician has claimed.

"The whole notion of cause and effect is out the window," said Dr. Mark Freedman, an Ottawa Hospital neurologist and leading MS researcher.

Dr. Zamboni argues that a blockage in veins draining blood from the brains of MS patients causes blood to back up and cause inflammation that damages the myelin coating around nerve cells. That inflammation is known to trigger MS.

He published research that found the vein narrowing in 65 MS patients, but in none of the 235 healthy people who were also tested. A later study by Dr. Zamboni reported that using angioplasty -- where a tiny balloon is inflated inside a blood vessel -- to unblock patients' veins improved their condition. That study lacked a comparison group that did not get the operation, and other measures to factor out the placebo effect.

Fuelled by positive media coverage, though, the findings sparked a massive response among patients who have the chronic and frequently debilitating disease, with thousands seeking out testing and treatment.

Neurologists voicing skepticism about the research have been criticized as unwilling to accept new ideas and beholden to the pharmaceutical industry and its treatments.

Dr. Zivadinov took the unusual step of issuing a news release yesterday of sketching out results of the first phase of his more rigorous study into CCSVI.

His team conducted ultrasound scans of neck veins on 280 MS patients, 161 healthy people and about 60 with other neurological conditions.

When subjects with borderline findings were included, it turned out that 56% of MS patients and 22% of healthy comparisons had the vein problem. When the borderlines were excluded, 62.5% of multiple sclerosis sufferers and 26% of healthy people tested positive for the condition.

The fact that so many more MS patients had the condition is a significant finding, said Dr. Zivadinov. He also noted, however, that the vein narrowing was more common in people at more advanced stages of the disease.

"That would be against CCSVI being a primary cause of MS, although clearly this can't be determined yet," said Dr. Zivadinov. "This will be very difficult to determine: what is the chicken and what is the egg."

Luanne Metz, an Edmonton-based MS specialist, said the results suggest the vein narrowing could be a risk factor for the disease, but not its cause.

"What it really does is it really warns that people need to be cautious," the neurologist said.

Dr. Paul O'Connor, a neurologist at Toronto's St. Michael's Hospital, said he would advise against patients even getting tested.

"There is not a shred of real evidence anywhere that messing around with these veins does anything to help MS patients," he said. "If there is no treatment for this condition, there is no need to detect it."

Both he and Dr. Freedman also suggested that Dr. Ziadinov may be in a conflict of interest, given that his Buffalo Neuroimaging Analysis Center is now offering neck scans to MS patients for fees of \$4,500 to \$6,000.

Dr. Ziadinov said he and his colleagues debated the ethics of providing the service for a fee, but decided they had an ethical obligation to do so, partly because 15,000 MS patients had approached them to be part of clinical trials that have spots for just 500. The proceeds will fund the research, he added.

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