

A periodic newsletter from the Buffalo Neuroimaging Analysis Center

Letter from the Director



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Director, Buffalo Neuroimaging
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February 4, 2010

My Friends,

I write to you today as researchers from the Buffalo Neuroimaging Analysis Center (BNAC) and the Jacobs Neurological Institute (JNI) at the University at Buffalo are completing their analysis of the first of several studies on chronic cerebrospinal venous insufficiency (CCSVI) in multiple sclerosis (MS). In a few weeks, we will announce the findings of CCSVI prevalence in the first 500 subjects, who participated in the study, *Combined Transcranial and Extracranial Venous Doppler (CTEVD) evaluation in MS and related diseases*.

We believe our CCSVI studies testing Dr. Paolo Zamboni's controversial CCSVI theory will result in groundbreaking discoveries in the field of MS. Dr.

Zamboni's theory states that CCSVI is a complex vascular condition characterized by narrowing of the extra-cranial veins that restrict the normal outflow of blood from the brain. This restriction then causes alterations in blood flow patterns within the brain that eventually cause injury to brain tissue and degeneration of neurons.

As many of you are aware, enrollment in the first phase of the CTEVD study was closed in late December. What I can tell you today is that the preliminary results are exciting scientifically and will generate a great deal of discussion among our colleagues, the worldwide press, and individuals like you who are following very closely any developments about CCSVI. We are planning a press release by mid-February, as well as submission of these findings to the American Academy of Neurology annual conference as late breaking news.

I can further tell you that our research will pose new and provocative questions about the CCSVI theory which will be addressed in the second phase of the CTEVD Study. For this next phase, we will include an additional 500 participants who will be examined with a new Doppler machine specifically developed for CCSVI. In preparation, statisticians are at this time working to determine how many subjects are needed for

each age group, gender, and level of MS progression. Once we have the numbers, applicants who fit the research profile will be contacted according to the order in which they completed the online questionnaire, and the second phase of screening will begin. When we have confirmed the requisite 500 new participants, we will notify by email the remaining individuals (13,000+) who filled out the online questionnaire with hopes of participating in the study.

As scientists, we are, of course, excited to be engaged in developing a new understanding of MS, a disease that has confounded the medical profession for over 200 years. I speak for the entire BNAC-JNI research team and Dr. Bianca Weinstock-Guttman to let you know that this particular research is having an impact like no other we have known. We have been simultaneously humbled and inspired by the unprecedented volume of requests to participate in the CTEVD study.

At BNAC and JNI, we appreciate the urgency people with MS have exhibited to learn immediately, even before the definitive CCSVI research is complete, whether their veins are constricted. Therefore, in response to the overwhelming desire they have expressed since learning about the CCSVI theory, we

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Letter from the Director continued...

have made a momentous decision. After consulting the Institutional Review Board at the University at Buffalo using preliminary results from the first phase of the CTEVD study that included 500 subjects, BNAC-JNI is pleased to announce that we will begin to offer **CCSVI Diagnostic Venous Testing beginning in mid-February 2010**. Patients may be referred by their neurologists or be self-referred. Core testing will include the following:

- 3 Tesla MRI of the brain with quantitative measurement of the level of iron deposits in the brain on susceptibility-weighted imaging, with a report by a neuro-radiologist
- 3 Tesla MRI of the neck aimed at visualization of the jugular, vertebral and other collateral veins, with a report by a neuro-radiologist
- Doppler exam of the head and neck to acquire images of the direction of venous blood flow in different body positions, with a report by a neuro-radiologist
- Clinical visit that will provide assessment of patient status, discuss the findings and provide a comprehensive summary report with recommendations for the future

There will also be optional examinations for neuropsychological and rehabilitation assessments, if necessary.

Testing for each patient will be done over two days here at Buffalo General Hospital. A new Doppler machine, specifically developed for CCSVI, will be used for all diagnostic procedures. BNAC-JNI will be the first Center

in North America to use such a machine, and will begin to provide training for other Centers that have expressed an interest in mastering the art of CCSVI diagnosis. We wanted to let people know now that they will be able to look to BNAC for comprehensive diagnosis of venous constriction. Furthermore, we realize that not all MS patients will be able to afford the costs of the diagnostic services in addition to travel to Buffalo. Therefore, we are planning to approach several major insurance providers to request reimbursement approval for these proposed diagnostic tests. Please understand, however, that discussions and negotiations with these companies may take at least 18 months before reimbursements for CCSVI tests are approved.

BNAC-JNI is proud to be one of the first neurology centers in North America to provide this comprehensive new patient service. We will use the expertise we have developed in our CCSVI research to diagnose venous blockage. With this knowledge, patients and their neurologists will be able to discuss appropriate next steps in their treatment.

Let me now tell you about some other work BNAC is doing in CCSVI. Together with Dr. Zamboni, we are at this time completing the final phases of the *EndoVascular Treatment study in MS (EVTMS)*. We expect preliminary results to be presented by Dr. Zamboni in Florida in early February.

BNAC-JNI has also taken the first step towards treatment of CCSVI. Together with world experts in vascular surgery from

the Department of Neurosurgery at the University of Buffalo, we will soon begin the *Controlled Randomized Endovascular Therapy (CRET)* study for CCSVI. This will be a 6-month study that will evaluate the safety and preliminary efficacy of therapeutic angioplasty, and will include 30 patients with MS. In order to avoid any confusion about potential candidates for this study, we will use the same approach as for phase 2 of the CTEVD study: applicants who fill out the newly created CRET questionnaire, fit the research profile and express willingness to undergo endovascular treatment will be contacted according to the order in which they complete the online questionnaire. We will also consider in the selection process those patients who have already sent emails expressing willingness to undergo endovascular treatment. Positive results from this study will lead to organization of larger clinical trials in MS.

In conclusion, I must re-emphasize here what I have said many times in interviews over the past year. We cannot recommend endovascular treatment to MS patients before we fully understand the safety of any approach we may propose. In the future, we will perform double-blind controlled trials using a treatment that is different from those used by either Prof. Zamboni or Prof. Michael Dake of Stanford University. After our initial controlled safety trial concludes, we will test the efficacy of this new procedure on a larger sample of MS patients.

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Letter from the Director continued...

Like you, we want the research to be completed as soon as possible. Only then will it be possible to arrive at a consensus about treatments. We began the first study out of faith that the implications of Dr. Zamboni's CCSVI theory were so far-reaching that we were impelled to forge ahead with what will be a \$5 million study. Working with the University at Buffalo Foundation and the JNI, we have begun our fundraising campaign. In a few days we will submit a request for a major grant to the National Multiple Sclerosis Society in response to their recent call for proposals.

As you will also read in this newsletter, we have had an outpouring of gifts in the past few weeks from people around the world. We are very grateful for

this support. To the many people who ask, "When will BNAC be able to say if the CCSVI theory is valid?" we must say that a big part of the answer is, "The sooner we have the funds, the faster we will be able to conclude all the studies we envision." More about how you can help appears later in this newsletter.

Thank you again to everyone who has been following our research, to those who participated in our first study, to those interested in phase 2 of the CTEVD study, and to everyone who has contributed gifts both large and small.

We understand that everyone with MS hopes for a cure right now. We ask for your patience a little longer to give us time to complete this scientifically valid

study. Like you, we look forward to the possibility of a proven and safe endovascular treatment for MS. While we cannot recommend such treatment today, with your understanding and help, we hope we will be able to do so in the future.

Together, we are on our way to discovering about CCSVI. We continue to believe this research will be integral to changing the way MS is defined and treated.

Sincerely,



Robert Zivadinov, MD, PhD
Director

To be considered for phase 2 of the CTEVD Study, go to:

http://www.bnac.net/?page_id=517 to complete an on-line form or email: ctevd@bnac.net

For more information about CCSVI Diagnostic Venous Testing, go to:

http://www.bnac.net/?page_id=535 or email: ccsvi.venoustesting@bnac.net

To be considered for the CRET study, go to:

http://www.bnac.net/?page_id=534 or email: cret-ccsvi@bnac.net

"Meet" One of the First 500 CTEVD Study Participants



BNAC's Patricia Shulenburg (right) asks CTEVD Participant (left) what it was like to participate in the first study.

Would you like to know what it was like to be one of the first five hundred participants in the CTEVD Study? Because of confidentiality restrictions, we cannot disclose the name of anyone in the study but we can "introduce" you to someone who can, anonymously, let you know what it was like to be part of this exciting research.

Meet "Kay," a woman who par-

ticipated in Phase 1 of the CTEVD study. She met with Patricia Shulenburg of BNAC to describe her experience.

Patricia: *How did you learn about the CTEVD Study?*

Kay: I was first diagnosed with MS in March of 2006. My neurologist referred

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Study Participant continued...

me to a MS specialist at the Jacobs Neurological Institute (JNI) who confirmed that I had multiple sclerosis. I have participated in small research studies before that just involved blood samples, but the CCSVI study is the largest study I have ever participated in. I knew they were looking at veins to see if there was some narrowing. I learned more about CCSVI from the website, "Patients Like Me," and from the Canadian CTV broadcast in November about Dr. Zamboni's "Liberation Treatment."

I was inspired to contact the BNAC about this study because, like so many of us with MS, I am looking for answers. When I realized the significance of the research, I was excited to be a part of it.

Patricia: *Tell us about your day of testing.*

Kay: All the testing is done at Buffalo General Hospital where they even have valet parking as an option! BNAC is located just across the hall from the Jacobs Neurological Institute waiting

room so it was familiar to me. I was met by one of the project coordinators who shepherded me through my day of tests.

I had an MRI which was really no different to me from all the other MRIs I've had. I was given a CD of my scans.

Then I went back to the JNI for my Doppler exam. There were 3 researchers in the Doppler room where I was seated in a comfortable chair and had my blood drawn. The Vascular Technologist then started the exam. She applied gel to my neck and moved the wand up and down my neck area while observing my veins. She then applied gel by my ear to observe my veins in my brain on her monitor. I wasn't able to see the monitor or learn the results but just knowing that my images were contributing to their knowledge of MS was a great feeling. That part took about 45 minutes.

The next part of the testing was the Environmental Questionnaire. The project coordinator asked me

lots of questions for about another half hour. They are trying to figure out if there is something about a person's environment that contributes to their MS.

That was it!

Patricia: *This was an unpaid study and sounds like it took most of a day. Was it time well spent?*

Kay: Ever since I was diagnosed I wanted to be active in searching for a cure, but I didn't know where to start. This study made sense to me and I want to continue to further the research. Now, like everybody else, I will wait to hear what has been learned so far.

Patricia: *Thank you, Kay, for describing what it was like to participate in the study. We all appreciate the time you and the other 499 participants gave for the advancement of knowledge about multiple sclerosis.*

The CTEVD Study is a single-blinded study.

What does that mean?

During the study, the CTEVD researchers do not know the health condition of the study subject.

What will happen when the study is unblinded in February 2010?

At that time, the study subject's medical history, identification number, and disease category will be available to the researchers for further analysis.

The BNAC says THANKS

We are pleased to report that we have raised over \$130,000 since beginning our fundraising in December 2009. This has included a **\$75,000 challenge grant from the Direct-MS Foundation**, **\$20,000 from the Jacquemin Family Foundation**, a **\$10,000** gift from an individual, and several gifts at the \$3,000 level. Over \$90,000 in contributions have poured in from individuals in the **U.S.**, **Canada**, **Sweden**, **Switzerland**, and **India** in amounts ranging from \$10 on up. We are very grateful for support at all levels.

Sherlock Holmes and Dr. Watson are on the case!



Dr. Watson what have we here?

funds for the first 75 parties that raise \$1,000 or more!

For information about hosting a party, go to:

<http://msterypartyccsvi.bnac.net>
or email ctevd.parties@bnac.net

To donate online:

<http://giving.buffalo.edu/bnac>

In the special instructions box, enter "I want to solve the **MStery of MS.**"

To make a gift directly write a check payable to "University at Buffalo Foundation" for "BNAC 9333-648226, BN001."

Mail to:

University at Buffalo Foundation
P.O. Box 900
Amherst, NY 14260

MStery Party Steering Committee

Anonymous

Shelly Boyle

Cheryle Damato

Evelyn Drozen

Kelly Germain

Jill Nolan

Linda Safran

Patricia Shulenburg

Help solve the **MStery of MS!**

Consider hosting a **MStery Party** to help BNAC complete this 1,700 person comprehensive \$5 million CCSVI study!

We are pleased to announce that the **Direct-MS Foundation** will provide \$1,000 in matching

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