

CFS and Stem Cells: A Warning

by Carol Sieverling

Paul Cheney, MD, PhD has accompanied two groups of CFS/ME patients to stem cells clinics in Costa Rica and Panama this year, and many more will be going to Panama this fall. The stem cells come from the afterbirth (placenta and umbilical cord) of healthy new born infants and are thus considered adult stem cells, not fetal. Future patients will also be given their own stem cells derived from belly fat in addition to the afterbirth stem cells.

Though it's early yet to know the full benefit of the stem cell transfusions or how long such benefits will last, initial results range from good to spectacular. This has prompted several CFS/ME patients to seek out stem cell therapy on their own.

Dr. Cheney has three concerns regarding CFS/ME patients undergoing stem cell therapy.

1) **Re-Boot Gene Expression with Cell Signaling Factors**

Dr. Cheney believes that better and longer lasting results will be obtained from stem cell therapy if patients first shift or "re-boot" their gene expression to a more normal genetic expression. "Gene expression" may not make sense to some, so here's a simple explanation. Individual genes are either "on" or "off". If they are off, something may trigger them into turning on, such as diet, environmental exposures, pathogens, toxins, stress, etc. Once on, it's a matter of degree, like a dimmer switch. They can be on just a little, on moderately, or on all the way.

In all chronic illnesses, the body attempts to compensate or adapt to the illness. Doing so shifts the gene expression. The gene expression of a person with CFS/ME is far from normal - it reflects the illness. The overall gene expression is difficult to change. Even if you address the underlying cause(s) of an illness, it can take months or even years for the body to realize the illness is gone and allow the gene expression to gradually shift back to normal.

A great example of this is Dr. Cheney's own heart transplant made necessary by a diagnosis of idiopathic cardiomyopathy. After two years of increasingly severe symptoms, the underlying problem of heart failure was corrected surgically in a matter of hours. However, even after an outstandingly successful transplant, a resulting cardiac output of someone in their 20's, and time to recover from the surgery itself, Dr. Cheney's functional capacity was still very much what it had been before the transplant. He asked his doctors why he still felt so incapacitated. One doctor told him, "Well, your body adapted to the reality of a failing heart in order to survive and now that your heart is fixed, it will take a year or two for your body to re-adapt back to the reality of your new heart."

In other words, all chronic illness always has two problems to solve: the problem at the core of the illness and the adaptation the body makes to survive. The first can sometimes be fixed very quickly (hours to weeks) but the latter takes time. There is no "hours to weeks fix" to the second problem of adaptation because it becomes programmed into one's gene expression, also known as phenotype.

Since his surgery and adaptive cure from heart failure, Dr. Cheney has found that certain low molecular weight peptides called Cell Signaling Factors (CSF's) have the ability to more quickly shift gene

expression towards normal as measured by echocardiography. CSF's can often improve function within 90 days, though tests results show progress well before the patient actually experiences it. For instance, measurements of cardiac diastolic function typically improve months before patients report feeling better and doing more. There is also the problem of genotype corruption which can only be addressed by stem cells.

Over the last three or four years he has determined which CSFs are most beneficial to CFS/ME patients. He does not order them from a company, but has arranged for his own private production of heart, pancreas, liver and kidney from the respective organs of bison. The brain CSF, also privately produced, is of porcine (pig) origin. The CSF's are in a cream-like form and are typically rubbed into the forearms three times per week to daily.

The use of bison as the primary source for the CSF's stems from several factors. Bison are incredibly aerobic animals with vast aerobic energetic potential. They are significantly more organic than virtually any other meat source. Finally, they are only one of two known animals who never get cancer, the other being shark. They also live three to four times longer than beef cattle and they do not have "mad-cow" disease, though skin cream makes this a non-issue. Finally, bison CSF's are 50-100% more potent than comparable porcine or bovine CSF's, as measured on echo.

Dr. Cheney uses adrenal and thymus CSF's for testing purposes only - never for treatment. CFS/ME patients respond very negatively to them, usually with a major drop in energy on echo. Adrenal and thymus CSF's should never be taken by CFS/ME patients. Porcine Liver also has a very negative effect in CFS patients and should not be used either for therapy.

Dr. Cheney is the only source of CSF's made from bison because at this time he feels that they need to be used only under the care of a medical professional familiar with their use. For this reason, he only sells them to his own patients. He plans to also sell them to a few other physicians who are currently learning about their use, how to incorporate appropriate pretreatments, and how to individualize the CSF protocol for their patients. Information about the physicians who have access to the CSF's and know how to use them will soon be posted on the Cheney Clinic web site (cheneyclinic.com).

There is anecdotal evidence that the use of CSF's can significantly improve the benefits of stem cells. An 80-year-old man with Parkinson's Disease as well as Coronary Artery Heart Disease (history of two heart attacks) was part of the group that received four consecutive daily transfusions totaling 45 million stem cells the last week of May. (He does not have CFS/ME but is related to one of the CFS/ME patients.) He'd been using four of the CSF's for 18 months. While still in Panama receiving the stem cells, the tremors began disappearing and he was able to hold a fork and eat peas for the first time in two years.

One week after his last transfusion, an echo revealed that an area of his left ventricle (a chamber of the heart) that prior to the stem cell transfusions was dead and not moving, was now alive and moving. At that time he also had much less hand tremor, was walking more upright with much less shuffle and swinging his legs much better when he walked. He threw away his cane. The allergic bags under his eyes disappeared. He looks, acts and talks as if he were 10 years younger. His face is pink now rather than pale and gray. He is more alert and doesn't slur his words. He feels much better and has much less foot edema. He even went back to work part-time.

The doctors at the Stem Cell Institute, who are familiar with Parkinson's cases, were astonished at the degree of benefit he experienced, and so quickly. They are very intrigued by the potential of CSF's to increase the benefits of stem cells.

Three studies* of patients who received stem cell transplants in the 90's revealed that despite initial success, about ten years later the stem cells had been corrupted and the patients' disease returned. Though the stem cells worked as expected and lasted 10 years, they were eventually corrupted by the same disease process that damaged the very cells they were replacing.

Dr. Cheney believes that CSF's are necessary both before and after the transfusions to increase both effectiveness and durability of the stem cells. According to Dr. Cheney, "Putting stem cells into a corrupted environment will eventually corrupt the stem cells and blunt their otherwise potentially impressive benefits." To use another of Dr. Cheney's analogies, if you correct the "software" problem first (shift phenotype with CSF's) and then address the "hardware" issue (shift genotype with stem cells), you'll get much better results. You don't expose a new hard drive to corrupted software programs, or the system will crash again! This is why he recommends that his patients continue to use the CSF's even after the stem cell transfusions. Doing so is designed to prevent the gene expression from shifting back to the configuration of the original illness and corrupting the stem cells.

2) Care must be given to a corrupted gut ecology before receiving stem cells.

Recent publications, especially by Kenny DeMeirleir out of Belgium, as well as others, suggest that corrupted gut ecology is playing a very large role in a subset of the sickest CFS/ME patients. This corruption must be addressed or it may thwart the effects of stem cells or degrade their benefits over time. The gut ecology must be measured by appropriate tests (such as the GI [2] panel from Diagnos-Techs, diagnostechs.com) and an integrated effort made to reduce the effects of this corrupted gut ecology on CFS/ME physiology. Stem cells can help attack the root causes of this corruption but the gut corruption and its consequences need to be minimized ahead of the stem cell transfusions. The core approach to improving the gut ecology is a modified elimination diet, copious use of digestive enzymes, immune support using bovine derived antibodies and immune factors (colostrum) and the judicious and careful use of probiotics with special attention to support of commensal E.Coli (a beneficial form of E.Coli marketed as Mutaflor).

3) Go to a high quality stem cell clinic affiliated with a US company.

Dr. Cheney's third concern is the quality of the stem cell laboratory and clinic doing the stem cell transfusions. Dr. Cheney chose MediStem, Inc (medisteminc.com), only after careful research and consideration of quality control issues. Medistem Inc. is a US-based company that assists in the operation of two clinics in Central America (cellmedicine.com) because those locations allow them to offer the treatment at a quarter of the cost of the same treatment in a clinic in the United States.

Dr. Cheney met with Neil Riordan PhD, the laboratory director and CEO of both clinics, and toured their facilities in Costa Rica and Panama before taking patients there. The clinic in Panama is located near, and its doctors associated with, the newest and best hospital in that country. The Punta Pacifica Hospital (hospitalpuntapacifica.com) is located in downtown Panama City and is professionally tied to

the Johns-Hopkins University Medical Center. There is, however, no direct association of the stem cell clinic to Johns-Hopkins.

The clinic stem cell laboratory, which produces the afterbirth derived stem cells used in treatment, is located in The City of Knowledge in the former US Canal Zone. Before a company can be established in this prestigious high technology development site, a thorough vetting process and due diligence approval from the Panamanian government is required. The fact that the laboratory is located here signifies its high standards and excellent quality control.

Touring a stem cell clinic and meeting its clinical staff is not the way to judge the level of treatment one will receive. The key to evaluating the quality of stem cells used and the effectiveness of the treatment received is to be found in the laboratory and its quality control operations, as well as the expertise of the laboratory personnel. Bear in mind that the laboratory and the clinic may be located in separate buildings, perhaps even very separate areas of a city.

There are serious concerns about stem cell clinics operating in Mexico and elsewhere. There are many bad actors and poor actors. Some actually transfuse patients with saline and claim that it's stem cells. Others have no quality control and do not test the viability of their stem cells, which means they may have little power to effect healing. Poor quality control could also lead to lack of sterile procedures and at worst patients could end up with no stem cells and an infection!

Dr. Cheney strongly recommends that clinics and their laboratories in Mexico and elsewhere be carefully scrutinized, especially their quality control procedures, personnel and capitalization. Good stem cell laboratories require millions of dollars to capitalize and cost over a hundred thousand dollars per month to run just for laboratory expenses. They require deep pockets and a decade or more of expertise in the area of quality stem cell production and propagation from afterbirth. Significant capitalization acts to ensure quality control to protect the investment of millions of dollars.

Adult stem cell therapy holds immense hope and possibilities for CFS/ME, but requires a significant investment. Prospective patients should consider such a major investment very carefully and make decisions that ensure the safest, most effective, and longest lasting treatment possible.

For more information about the Cheney Clinic and Dr. Cheney's research, see cheneyclinic.com and cheneyresearch.com

* Kordower JH et al. *Mov Disord* 2008 Dec 15; 23:2303
Nat Med 2008; 14:501 and 504 (two separate articles)