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I want to congratulate you on the excellent article published by Dr. Philip James and David Perrins substantiating the use of hyperbaric oxygenation (HBO) in the treatment of Multiple Sclerosis. I would, however, like to point out a bit more of the historical background as to what has occurred in the United States.

In the late seventies, I was treating a patient with osteomyelitis and concomitant multiple sclerosis. The osteomyelitis needed recurrent treatment, and each time the patient would receive hyperbaric oxygenation, the multiple sclerosis symptoms would abate.

Thus, we treated several patients and the findings were consistent. This was published in the Journal of Medical Florida Association 1978. A larger series accrued and was published again in the Journal of Medical Florida Association in 1980.

The conclusion is that hyperbaric oxygenation is not a cure for multiple sclerosis, and it is dose sensitive. It takes intermittent treatments and it alters the natural history of the disease in a favorable fashion. The editorial comments from first publication ranged from arrogance to influence.

At about this time, the National Multiple Sclerosis Society awarded the late Dr. Bougavst Fischer, the then professor of neurology at New York University, $250,000 to dispense these claims as this was not considered a valid concept. In 1983 Fischer watered down his version of a double-blind control crossover study, and in 1983 this was published in the New England Journal of Medicine.

The results, however, validated the original description from the Ocean Hyperbaric Center. Did Fischer receive acclaim? Was he nominated for the Nobel Prize? No, Dr. Fischer was fired and his chamber was put out to trash. It is very difficult to fight big business.

Today, if you call the MS Society, they do not recommend Hyperbaric Oxygenation and at the same time that it causes blindness. No such side-effect has ever been reported.

We validated many of our conclusions by studying 20 patients with MRIs before and after the first treatment and again after twenty treatments. The findings were that the scattered lesions in the cortex did not appear to change, but any lesion in the basal ganglia or mid brain, disappeared after one hour of hyperbaric oxygenation. Similar findings were found with visual evoked potentials, BAER and upper and lower somato-sensory evoked potentials.

These findings were presented at meetings worldwide and throughout the United States. This, however, is a non-drug, and little for the neurologist who frankly did not understand hyperbaric oxygenation. A series of double-blind control studies were later published, which were doomed to failure by design, in order to disprove this mechanism.

However, Doctors James and Perrins in the United Kingdom have accumulated data that is invaluable. It will be totally impossible financially or statistically to obtain such information as they have. Over a twenty year period, they have treated up to twelve thousand cases per year and have twenty year follow up.

In 1982, Mrs. Neubauer and I travelled to London to speak to a group called ARMS (Action for Research in Multiple Sclerosis) now dissolved, which was a group of patients, caregivers and neurologists. Dr. James, already familiar with hyperbaric oxygenation and hyperbaric oxygenation with relationship to the blood-brain barrier, began a movement with Dr. David Perrins that really did try the concept.

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Dr. Kindwall published two further articles in 1988 and 1989 on the etiology of multiple sclerosis being a wound in the central nervous system. This wound is indirectly due to a focal hypertension in medically susceptible vessels resulting in vascular injuries and initiation of a series of biochemical and physiological events culminating in an immunologic hypoxic situation, leading to demyelination, a secondary damaging process associated with the immune system. These are the obvious reasons why hyperbaric oxygenation would be much more beneficial if used in the earliest stage.

In MS, the lesions are both spinal cord—cerebral cortex, the combination being the most common. In the simplest terms, these are highly significant documentation of the positive effects of hyperbaric oxygenation as a therapeutic modality in the treatment of Multiple Sclerosis.

Newer techniques with Magnetic Resonance Imaging (MRI) will now indicate activity of a lesion by the use of a tracer called Gadolinium. Also, functional MRIs will become more valuable as MRI Spectroscopy is used to measure very specific chemical elements such as lactic acid. These future advances hopefully will substantiate the use of hyperbaric oxygenation as a main therapeutic modality in Multiple Sclerosis. No drug has withstood this rigorous testing with such positive results.

The conclusions

HBO is not a cure. It is dose sensitive, it requires intermittent continuous treatment, and alters the natural history of the disease in a favorable fashion. Then again, what could we expect since this is not a drug and not a money maker. We live in a drug-related, financial environment.

I am not a MSI but I am reasonably certain that even in the absence of spinal cord disease, the use of HBO as a main therapeutic modality is a logical extension of this benefit.

By Richard A. Neubauer, MD and Sheldon Gottlieb, PhD

A Letter to the Editor

The Treatment of Multiple Sclerosis with Hyperbaric Oxygen Therapy--The True Story

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