

Multiple Sclerosis update in US

Affecting half a million, multiple sclerosis is the most common autoimmune brain disease in the United States today. It is genetically predisposed and environmentally triggered (by virus, toxins and allergies). A specialized white cell is activated and enters the nervous system, causing direct damage to the white matter (myelin). Myelin exists throughout the central nervous system and the whole body can be affected. Multiple is indicative of multiple places in the nervous systems with multiple symptoms at multiple times.

Sclerosis (hardening) is the scarring of the white matter. The disease goes through flare-ups (exacerbations) and remissions. Depending on the clinical pattern, various labels are



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given to the patient. This includes primary, progressive, relapsing-remitting and progressive-relapsing. The disease is more commonly seen in women rather than in men and almost 25 percent start with a visual problem, classically described as optic neuritis (characterized by the inability to see well out of one eye). The doctor might find that the optic nerve is inflamed in that eye. Cortisone resolves this, but in most cases there is a return, and frequently with other neurologic symptoms which include weakness of one side of the body, numbness on the other side, bladder problems, double vision and dizziness.

The diagnosis is made by history, physical examination and confirmed with MRI (Magnetic Resonance Imaging) of the brain and spinal cord. The MRI shows the whitening or scars of various sizes and places in the brain. However, these are the ashes rather than the fire, and there may be more smoldering lesions. A Gadolinium, or better, a PET scan would show the true activity of the disease. A spinal tap, which usually

takes less than three minutes to do, will reveal slightly increased protein in the spinal fluid and more specifically, it is oligoclonal.

There is a new test called NAA (N-Acetyl Aspartate), which is a component of the myelin that can be measured, not only in the spinal fluid, but in the blood. As noted above, the typical course includes flare-ups and clearing. With a remission, which is sometimes referred to as a silent period, sometimes the brain is slowly smoldering and further damage is being done.

Also, during this time, the brain tries to compensate by internally rewiring itself. When remodeling can no longer do the job, symptoms again recur and frequently do not completely go away. The clinical course is highly variable, but some folks have minimal disability and are still able to work 20 years after the first symptoms of the disease.

Next week, the treatment.

(Editor's Note: Views and ideas of this column do not reflect on the ideas of The Coffeyville Journal.)