PRESS RELEASE

Multiple sclerosis: back to basics?

Failure to find an effective therapy for the chronic neurological disease multiple sclerosis (MS), despite 100 years of scientific research, could indicate a fundamental misunderstanding of the nature of the disease, an article published today in F1000Prime Reports (http://f1000.com/prime/reports/browse) suggests.

In his article, “Pathoetiology of multiple sclerosis: are we barking up the wrong tree?”, Peter K. Stys of the Hotchkiss Brain Institute, University of Calgary, argues that while the majority of the medical research community currently approaches MS as an autoimmune disease (much like Lupus and Rheumatoid Arthritis), for which the trigger is the immune system attacking a particular part of the nervous system, the features of the disease are equally well explained by approaching MS as a neurodegenerative disease (such as Parkinson’s and Alzheimer’s), which is followed by an immune reaction to damage.

This may sound like a fine distinction, but it would totally change the approach taken in treating the disease, as one would try to stop the degeneration of the nervous system in addition to damping down the immune system. Neurodegenerative diseases are characterized by the gradual breakdown of the nervous system, and although immune cell infiltration and loss of the myelin sheath that insulates nerve fibres is the hallmark of MS, more recent studies indicate that neuronal structures are also damaged.

Dr. Stys argues that as current approaches have failed to produce effective treatments for the progressive, degenerative phase of MS, the medical research community should look afresh at alternative explanations for the disease, in order to better understand how to treat MS:

“There is little question that MS exhibits very important autoimmune inflammatory features. But this does not necessarily mean autoimmunity is the primary cause; it may be a prominent reaction to an underlying degenerative process. Failure of our most powerful anti-inflammatory treatments to halt progression raises important flags about our understanding of this disease.”

Read the full article at: http://f1000.com/prime/reports/m/5/20/.

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