

How Early Does MS Begin?



Have you ever wondered when your MS began? After you heard the words, “you have MS,” did you look back and remember having unexplained symptoms for years? Or was it the opposite - did your MS suddenly appear out of the blue and send you to the doctor? I’ve heard many different versions of these journeys, and that’s why I was really excited to help put together a recent workshop with my colleagues at the MS Society of Canada on the multiple sclerosis “prodrome.”

No, the prodrome is not a sports arena. It refers to a period of time when vague symptoms occur before full-blown MS erupts. These symptoms often don’t fit with the recognized path to an MS diagnosis. For instance, maybe your skin itches and you consult a dermatologist. Or you see your doctor about headaches. And what about the person who gets hit with MS out of the blue? There may be research clues in their experience as well – for example, maybe something made them resilient to hidden activity until they hit an inflection point.

Why do we care about when MS actually begins? As part of research efforts needed to get to a cure, we need to figure out how to stop MS in its tracks, how to reverse disability and symptoms, and how to end the disease so that no one else will ever be diagnosed with MS.

Some clever researchers, like the workshop co-chairs Ruth Ann Marrie (University of Manitoba) and Helen Tremlett (University of British Columbia), have been searching medical claims databases and have found increases in the number of office visits and hospital stays many years – 5, 10, even or 20 plus years before some people are diagnosed with MS. And researchers are looking for markers in the blood, such as “[neurofilament light](#),” that might indicate something’s going on even if there’s nothing obvious.

During the workshop we heard from researchers who work on Parkinson's disease and Type 1 diabetes, and how they've been able to identify risk factors and biological markers that can predict early stages of these disorders. One day we might be able to do the same for MS. An MS risk score might be based on some of the known factors that increase a person's likelihood the develop MS – like having a parent or sibling with MS, or being a smoker, or having low levels of vitamin D, or a history of mononucleosis. Once someone has been identified as having a risk for MS, other tests could be used one day to detect MS in its pre-clinical or prodromal stage. If a battery of tests could predict, with some certainty, that a person is at risk for MS, then one could be encouraged to engage in wellness behaviors that we know reduce the risk for MS and/or perhaps even start a disease modifying therapy that could significantly delay or perhaps even prevent MS from occurring in the first place! What a day that would be!

We already have a good start! A blood test is under development that could contribute to identifying people at high risk for MS and we already have a good MRI tool that could be used to detect MS at its very earliest stages. Workshop participants weighed in on next steps and priority research, and the chairs and presenters will be writing a paper to galvanize the MS research community around the earliest signs of MS.

I'm happy to report that the National MS Society and the MS Society of Canada have already released a [**Request for Applications**](#) to support research on the early detection of MS to help drive this effort forward.