

Mayo Clinic finds tool to predict disability timeline for progressive MS patients

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Many patients with progressive multiple sclerosis (MS) worry how quickly the disease will progress. Now, by noting the presence of certain markers in a commonly performed diagnostic test, Mayo Clinic researchers can predict whether patients will suffer a faster onset of disability and counsel them to help ease anxiety. The research is being presented at the American Academy of Neurology meeting in Honolulu, Hawaii.

Progressive MS is a disease of the [central nervous system](#) that can damage the brain, [spinal cord](#) and optic nerves. Over time, this damage can make it difficult or impossible for patients to walk, making them reliant on mobility aids such as walkers or wheelchairs.

"In this study, we found that in patients who developed the progressive form of MS that had preceding relapses, the presence of greater production of one of these molecules, immunoglobulin G, predicted a faster onset of disability," explains Orhun Kantarci, M.D., a Mayo Clinic neurologist and the study's lead author. As physicians better predict the onset of disability, they can better counsel patients by providing answers in a time of uncertainty.

The study looked at cerebrospinal fluid (CSF) test results from a sample of 281 [progressive MS](#) patients seen at Mayo Clinic from 2002 to 2007. In general, CSF test results help physicians when the diagnosis is uncertain. For this study, researchers analyzed CSF test results and noticed a relationship between a faster disability rate and abnormally

high levels of two proteins -- oligoclonal band and immunoglobulin-G molecule. If patients had the progressive form of MS with proceeding relapses, and their CSF results showed an elevated protein, researchers concluded they will have a faster rate of disability.

The study is a significant step forward in predicting disability outcomes, says researcher Junger Tang, M.D., a neurology fellow at Mayo Clinic. The next step is further research to confirm the results, he says.

MS is the most common cause of nontraumatic neurological disability in young adults in North America and Europe. MS occurs most often in people ages 20 to 40, and is up to three times more common in women than men. Symptoms include weakness, loss of sensation, visual disturbances, and cognitive dysfunction.

Provided by Mayo Clinic

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