New study may redefine how a chronic auto-immune disease is diagnosed

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New research from Jefferson Hospital for Neuroscience (JHN) may redefine how Chronic Inflammatory Demyelinating Polyneuropathy (CIDP) is diagnosed.

Eduardo De Sousa, M.D., assistant professor of Neurology at Jefferson Medical College of Thomas Jefferson University, and director of the Electrodiagnostic Neuromuscular Lab at JHN, led the study which looked at the number of demyelinating features that are needed to differentiate between CIDP, Amyotrophic lateral sclerosis (ALS, or Lou Gehrig's disease) and diabetic neuropathy. His research suggests a minimum number of three demyelinating features can be used to positively identify CIDP in a patient. CIDP is a neurological disorder characterized by progressive weakness and impaired sensory function in the legs and arms. It affects about 50,000 people in the United States. The study, available in the current edition of the *Journal of Clinical Neuromuscular Disease*, may help doctors more effectively diagnose and treat CIDP.

Currently, to make a diagnosis of CIDP, patients undergo nerve conduction studies to determine the number and severity of abnormalities on electrodiagnostic tests. Patients with a specific pattern and number of abnormalities, also know as demyelinating findings, during these studies are determined to have CIDP.

The study involved 26 CIDP patients and a control group of 21 patients, nine ALS patients and 12 diabetic neuropathy patients. The researchers

judged the number of demyelinating findings in the CIDP patients that responded to the treatment. They then analyzed the number of features to make the screenings more sensitive. Their findings suggest that with three demyelinating features significantly increased the specificity of the diagnosis of CIDP, but in exchange, the sensitivity was reduced; two features produced a less specific pattern making it difficult to distinguish between CIDP, ALS or diabetic neuropathy, but increased the sensitivity of the test allowing to diagnose patients earlier on the course of their disease; and one feature was determined to have low specificity for the diagnosis of CIDP.

"This is a clinically significant finding that may help doctors screen potential CIDP patients," said Dr. De Sousa." In determining the number of demyelinating findings needed to define CIDP, doctors may be able to make a diagnosis sooner allowing for a targeted treatment to begin quicker, preventing further disability."

CIDP can occur at any age, but is most common in the elderly and in men. It often presents with symptoms that include tingling or numbness (beginning in the toes and fingers), weakness of the arms and legs, loss of deep tendon reflexes, fatigue, and abnormal sensations. CIDP is closely related to Guillain-Barre syndrome, but instead of having rapid onset, CIDP has a more protracted chronic course. Treatment for CIDP includes corticosteroids such as prednisone, plasmapheresis (plasma exchange) and intravenous immunoglobulin (IVIg). IVIg may be used even as a first-line therapy. Immunosuppressant drug therapy may be effective in patients who fail standard therapy. Physiotherapy may improve muscle strength, balance, function and mobility, and minimize the shrinkage of muscles and tendons and distortions of the joints.

Source: Thomas Jefferson University (news : web)