

Myositis:

Finding Hope Through Care & Research

The symptoms were mysterious: skin rash, hair thinning, weight loss and extreme muscle weakness. “I became so weak,” recounts one patient, “I couldn’t stand, use the toilet or open a jar.”

About 50,000 people nationwide experience some of the same symptoms—all characteristic of a rare disorder—both strange and frightening for those who have it.

Called myositis, it’s a condition in which a patient’s immune system mistakenly attacks and destroys healthy muscle tissue. Many patients have a lot of the same symptoms as those with other forms of muscle disease so they may not be diagnosed correctly. Correct diagnosis is key to receiving the appropriate treatment.

“Myositis can be very severe,” says neurologist Andrew Mammen, M.D., co-director of the Johns Hopkins Myositis Center. “People can die from it if the diaphragm muscle separating the chest and belly gets weak. Myositis patients also are more vulnerable to infections. About 25 percent have accompanying lung disease.”

In a substantial number of myositis patients, it was recently discovered that muscle tissue could degenerate without a patient having other symptoms of the disease. A team of researchers from the Myositis Center set out to find new autoantibodies that might provide clues. What they identified was a new protein, a type of antibody, found primarily among myositis patients who have taken statin drugs to lower cholesterol.

These patients had taken cholesterol-lowering statin medications prior to noticing muscle weakness. After the researchers noticed these patterns, the patients were treated with immune system-suppressing drugs, and all recovered at least partially.

“The immune system usually makes antibodies that only recognize foreign invaders—like bacteria and viruses—and targets them for destruction,” Dr. Mammen says. “In this group of patients, we found that statins induced the autoantibodies that target their muscle tissue for destruction instead.”

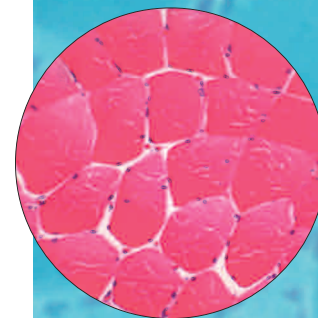
“Even though myositis is a rare disease, it encompasses one of the most prevalent sub-groups we have found,” says research assistant Grace Hong. “Without this discovery, patients may not have been treated with immuno-suppressant medications.”

“This discovery, which was published in the medical journal *Arthritis & Rheumatism*, could only be made possible in a significant research setting like the Myositis Center,” Hong adds, where the

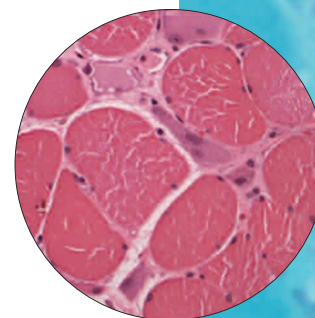
physicians/scientists have extensive expertise in diagnosing and managing the condition, and where there is a large bank of muscle tissue and blood samples for study.

The Johns Hopkins Myositis Center allows patients to see rheumatologists, neurologists, pulmonologists, nutritionists, and physical and occupational therapists in a coordinated approach. Experts work together to diagnose and manage each patient’s disease.

—Karen Blum



Normal
muscle tissue



Myositis
muscle tissue

Andrew Mammen, M.D.
Neurologist and co-director
of the Johns Hopkins
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For more information about myositis or to make an appointment, call 410-550-6962.