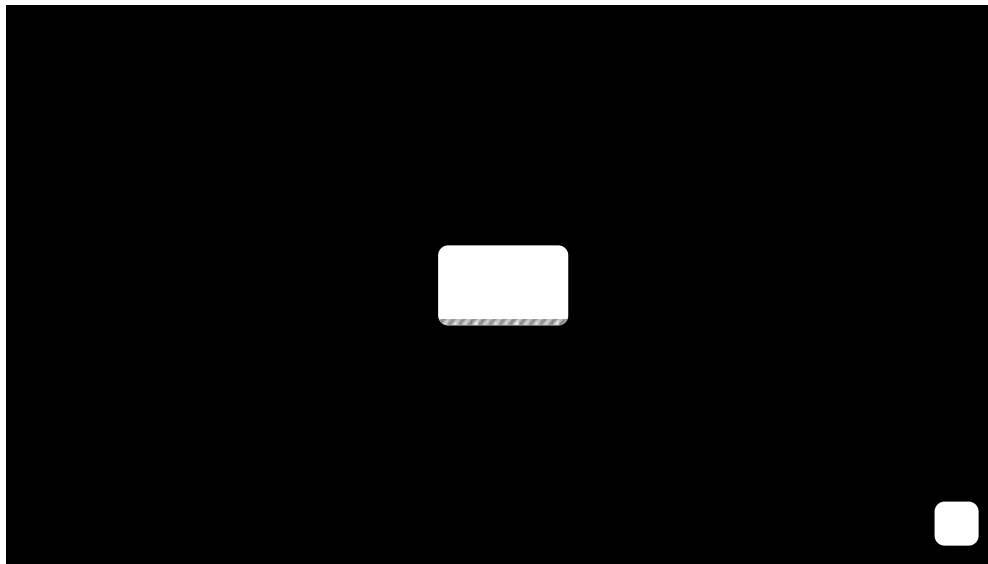


Researchers Map Out Symptoms of Small Fiber Polyneuropathy



BOSTON—Although an estimated 40 million Americans suffer from small fiber polyneuropathy, there are still many unknowns surrounding the symptoms and causes. Experts know the condition can be caused by a variety of diseases from diabetes to HIV, but up to 50% of patients with small fiber polyneuropathy (SFPN) are given an idiopathic diagnosis (*Curr Pain Headache Rep* 2011;15[3]:193-200).

Researchers are actively working to better define the disease. Focusing on patient-centered research, Anne Louise Oaklander, MD, PhD, a peripheral nerve specialist and the director of both the Nerve Unit and the neurodiagnostic skin biopsy laboratory at Massachusetts General Hospital in Boston, and epidemiologist Gary Zirpoli, PhD, formerly a researcher at the same institution, aimed to more narrowly phenotype chronic pain in SFPN patients while identifying symptoms to enable precise diagnosis and treatment.

Drs. Oaklander and Zirpoli, along with their team, used a screening tool—the Small Fiber Symptom Survey—and routinely administered it to patients being evaluated for SFPN, and to healthy controls and patients with other pain conditions. The team had developed the questionnaire over several years, with the initial validation conducted in 2017 (*J Pain* 2017;18[5]:556-563).

The survey captures 34 symptoms on a 5-point scale, on which patients reported the frequency of their symptoms for one week. Symptoms included physical and mental fatigue, sleep difficulties, headache, skin sensation issues, circulation and gastrointestinal issues, pelvic problems and other patient-reported symptoms.

Survey responses of participants who had objective confirmation via a skin biopsy or an abnormal autonomic function test contained frequent symptoms of deep internal aches and pains (93%), headaches (81%) and reduced skin sensation (89%). Similar symptoms were also observed in those being evaluated for SFPN but who had negative tests. In both groups, the symptoms were significantly more common in SFPN patients than in the healthy controls. Specifically, among all 67 patients with objectively confirmed SFPN, 91% reported pain in the past week of median severity 7 out of 10 (interquartile range [IQR], 5-8; range, 2-10), compared with 18% of controls (median severity, 2; IQR, 1-2). The results indicate that headache and internal pains, often abdominal, are more prevalent than standard neurologic configurations of SFPN that emphasize distal skin pain, paresthesias and sensory loss.

Drs. Oaklander and Zirpoli presented their research on comprehensive symptom screening for diagnosing SFPN at the International Association for the Study of Pain's 17th World Congress on Pain. Dr. Zirpoli is currently a postdoctoral associate at the Slone Epidemiology Center at Boston University.

Symptoms of SFPN that patients report most commonly, Dr. Oaklander explained, are not always the ones reported in textbooks. She noted that there is an advantage to obtaining unbiased information from patients.

"This [study] also allows us to take a hard look at the diagnostic tests that are used to confirm this disease, and what we've seen here is that they don't correlate that well with the patients' symptoms. This will also enable us to take a second look at the diagnostic value of these objective tests," Dr. Oaklander said.

—Anna DeNelsky

Video by Michael DePeau-Wilson and Meaghan Lee Callaghan