Microwave thermolysis reduces sweating and shows psychosocial improvements
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Young adults with excessive sweating, or axillary hyperhidrosis, experience high levels of social difficulties and anxiety. Microwave thermolysis reduces sweating and is associated with reduced social and emotional difficulties in young adults. This study examined the psychosocial benefit of microwave thermolysis for axillary hyperhidrosis in young adults.

The clinical report of this study, published in Lasers in Surgery and Medicine (LSM), the official journal of the American Society for Laser Medicine and Surgery, Inc. (ASLMS), was selected as the March 2020 Editor's Choice.

The study, led by Carisa Parrish, Ph.D., is titled "Microwave Thermolysis Reduces Generalized and Social Anxiety in Young Adults with Axillary Hyperhidrosis."

"Axillary hyperhidrosis is a chronic condition that is commonly associated with psychosocial impairments, including impaired quality of life, social functioning, and anxiety symptoms. There has been a lack of effective and durable medical treatments to treat axillary hyperhidrosis. It is exciting to identify an effective medical treatment with microwave thermolysis that also has a measurable impact of psychosocial functioning as well," said Parrish.

According to the study, there were significant improvements in sweat severity, skin-specific QOL, generalized anxiety, social anxiety, anxious/depressive symptoms, and social avoidance after one treatment, with further benefits in reduced sweat and improved QOL after two treatments. These results would suggest that hyperhidrosis results in psychosocial difficulties that can be addressed directly through effective medical treatment. Psychological treatments should be made available for all young adults suffering from hyperhidrosis as an important adjunct to effective medical treatment, as nearly a third of patients endorsed persistently elevated social difficulties despite effective medical treatment.

Carisa Parrish, Ph.D., is a clinical psychologist with a specialty in pediatric health conditions. She is an associate professor in the department of psychiatry and behavioral sciences at Johns Hopkins school of medicine. Dr. Parrish collaborates with physicians to address the psychosocial and emotional sequelae of chronic and acute medical stress in youth and their families. Her areas of interest include emotion regulation, parent-child relationships, and complementing behavioral interventions with mindfulness approaches.


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