

Electrical brain stimulation might help fibromyalgia patients

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Small French study saw improvement in people's mood, quality of life.

(HealthDay)—By using magnetic brain stimulation on patients with fibromyalgia, French researchers say they were able to improve some of the patients' symptoms.

Specifically, the technique, called transcranial magnetic stimulation, raised quality of life and emotional and social well-being among patients suffering from the condition, the researchers found in a small study.

"This improvement is associated with an increase in [brain](#) metabolism, which argues for a physical cause for this disorder and for the possibility of changes in areas of the brain to improve the symptoms," said lead researcher Dr. Eric Guedj, of Aix-Marseille University and the National

Center for Scientific Research, in Marseille.

"Previous studies in patients with fibromyalgia have suggested an alteration of [brain areas](#) is involved in the regulation of pain and emotion," he said.

The objective of this study was to demonstrate that it is possible to modulate these brain areas using transcranial magnetic stimulation to correct brain abnormalities and improve patients' symptoms, Guedj said.

During treatment, patients wear a cap lined with electrodes that send small electric charges to targeted areas of the brain. The idea is to stimulate these areas and alter how they react.

The report was published March 26 in the journal *Neurology*.

Dr. Alan Manevitz, a clinical psychiatrist at Lenox Hill Hospital in New York City, said, "Fibromyalgia is the most frequent cause of widespread pain, and affects 6 to 12 million people in the United States."

Fibromyalgia is associated with chronic pain. But it might also cause fatigue, interrupted sleep, depression, dizziness, digestive problems, headache, tingling, numbness and frequent urination, according to journal information.

Fibromyalgia had been thought of as a mental problem, Manevitz said. But it is now clear that it has physical causes.

"It's not a mental disorder that manifests itself as pain," he said. "It's a pain disorder that is associated with some mood issues."

Manevitz said he's piloting a study using transcranial magnetic

stimulation to treat fibromyalgia in hopes of both relieving pain and improving patients' quality of life.

"We had a decrease in pain, fatigue and depression," he said.

This is achieved by targeting the areas of the brain specifically involved in pain and in social and emotional well-being, Manevitz said.

"Transcranial magnetic stimulation is a very safe treatment," Manevitz said. Much is still not known about how effective it is in treating fibromyalgia, however. Questions such as how long the treatment effect lasts and how often it should be repeated need to be investigated, he said.

Manevitz said transcranial [magnetic stimulation](#) is not currently approved for treating fibromyalgia, so treatment would be "off-label." The technique was approved for treating depression by the U.S. Food and Drug Administration in 2008.

For the new study, 38 people—mostly women—who suffered from persistent [fibromyalgia pain](#) for more than six months were randomly assigned to either 14 sessions of real brain stimulation or a fake stimulation given over 10 weeks.

At the eleventh week, patients were asked about their quality of life and also had PET scans to assess any changes in their brains.

The researchers found that those who had received [magnetic brain stimulation](#) had a greater improvement in quality of life than those who received the sham stimulation.

The improvement in quality of life was seen in mood or feelings; emotional measures, such as joy, sadness, anger and anxiety; and social

areas, such as work performance, participation in social activities, contact with friends and engaging in hobbies and interests. These findings correlated with changes seen in the PET brain scans, the researchers said.

At the start of the study, participants had an average score of 60 on the quality-of-life questionnaire, on which scores range from zero to 100. In this ranking, lower scores indicate better quality of life.

After treatment, the average score of those receiving the [brain stimulation](#) dropped by about 10 points, while scores increased an average of two points for those who received the fake treatment, the researchers said.

Although the study found an association between [transcranial magnetic stimulation](#) and improved quality of life, it did not prove a cause-and-effect link.

More information: To learn more about fibromyalgia, visit the [U.S. National Library of Medicine](#).

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