Medical Xpress

Nerve stimulation might ease fibromyalgia pain

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Small early study saw improvement in patients' quality of life.

(HealthDay)—An implanted device that zaps the nerves at the nape of the neck—shown effective in treating some people with migraines—may also help ease the ache of fibromyalgia, an ailment that causes widespread body pain and tenderness.

A Belgian scientist treated small numbers of fibromyalgia patients with "occipital nerve stimulation," which rouses the occipital nerves just beneath the skin at the back of the neck using an implanted device. Dr. Mark Plazier found that pain scores dropped for 20 of 25 patients using this device over six months and their quality of life improved significantly.

"There are only a few treatment options [for fibromyalgia] right now and

the response to treatment is far from 100 percent, which implies there are a lot of patients still looking for help to get a better life. This treatment might be an excellent option for them," said Plazier, a neurosurgeon at University Hospital Antwerp. But, "it is difficult to determine the impact of these findings on fibromyalgia patients, since larger trials ... are necessary."

Plazier is to present his research this week at a meeting of the International Neuromodulation Society, in Berlin. Neuromodulation is a group of therapies that use medical devices to relieve symptoms or restore abilities by altering nerve system function.

Research presented at scientific conferences has not typically been peer-reviewed or published and is considered preliminary.

Fibromyalgia is thought to affect about 5 million American adults—most of them women—according to the U.S. National Institutes of Health. The cause of the disorder, which can also involve sleep problems, anxiety and depression, is unknown and it can be difficult to treat.

Plazier also presented a separate study on six fibromyalgia patients using PET scan images to visualize brain changes from occipital nerve stimulation treatment. It suggested that the nerve stimulation changes activity in the limbic system, a brain region that helps determine pain perception.

"In fibromyalgia, we see that there is a hypervigilance to pain, so patients are more sensitive to pain and more aware of it," Plazier said. "They also have high scores on questionnaires concerning catastrophizing behavior, which implies the high impact of pain on their lives."

"During [occipital nerve] stimulation we see differences in brain activity

on PET scans in regions involved in pain," he added. "This all might suggest that we are influencing a cerebral system and might even turn it back to 'normal' perception."

Study participants didn't find the nerve-zapping treatment to be painful, Plazier noted. The occipital nerve stimulation device is implanted during a brief surgery using general anesthesia, he said, and postoperative pain is normal but not extreme.

Dr. Patrick Wood, director of the fibromyalgia clinic at Madison River Oaks Medical Center in Canton, Miss., called the studied "interesting and promising" but said additional research is necessary before treatment with occipital nerve stimulation—which may cost around $10,000—could become mainstream for fibromyalgia patients.

"It's mostly used in headaches, and even in the headache realm it's still considered experimental," Wood said. "It would be nice to have expanded data here that would indicate there's something worth banking on and putting our hopes on. It's promising, but more work needs to be done before the average patient can consider it."

More information: The U.S. National Institute of Arthritis and Musculoskeletal and Skin Diseases has more about fibromyalgia.