Can Light Therapy Relieve Pain Caused by Cancer Treatment? [VIDEO]

Researchers will test whether this therapy could replace opioids in treating painful swelling of the mouth.

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Scientists are planning to test light therapy as a replacement for opioids in treating a common side effect of chemotherapy and radiation therapy known as oral mucositis, reports the University at Buffalo (UB). Light therapy refers to the treatment of various conditions with the use of certain types of artificial light.

Oral mucositis is caused by damage to mucous tissue following cancer treatment and can lead to the development of painful ulcers and swelling of the mouth. It occurs in almost 40 percent of people with cancer who receive chemotherapy and nearly 80 percent of those with cancer who receive radiation therapy.

What's more, many people with cancer have reported that oral mucositis is the worst side effect of their cancer treatment. The pain caused by the condition can slow or delay treatment, interfere with eating and sometimes require hospitalization and the administration of feeding tubes.

Doctors usually prescribe opioids to help relieve the symptoms of mucositis. However, these drugs can sometimes lead to addiction and abuse, among other side effects.

Consequently, scientists are working to find new and better ways to prevent or treat oral mucositis. One method under consideration is photobiomodulation, a form of low-dose light therapy. Photobiomodulation has been found to be effective in the treatment of pain and the stimulation of healing in hundreds of clinical trials and thousands of academic papers.

According to Praveen Arany, DDS, PhD, the study's lead researcher and an assistant professor in the UB School of Dental Medicine in New York, "This treatment offers a simple, nondrug, noninvasive treatment approach to relieve pain and improve quality of life for cancer patients."

Researchers from UB and the Roswell Park Comprehensive Cancer Center in Buffalo will examine the effectiveness of light therapy for oral mucositis by using the technology developed by MuReva Phototherapy, a Cleveland-based spinoff of lighting solutions manufacturer Lumitex. In addition, they will determine the proper dosage to limit pain and stimulate healing in tissues damaged by

cancer treatment.

“MuReva’s innovative mouthpiece that can be self-administered simultaneously targets a much larger portion of the oral cavity and delivers a full treatment in six minutes or less,” said Vedang Kothari, president and CEO of MuReva Phototherapy. “We believe this technology has the potential to revolutionize the treatment for oral mucositis and finally present a market-ready solution to this debilitating side effect.”

Click here to learn how light therapy can help cancer survivors sleep better.

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