INTRODUCTION

• Opioid withdrawal syndrome is a ubiquitous challenge faced by patients with opioid use disorder seeking opioid cessation.

• There are no clinically supported recommendations for non-pharmacological options for the treatment of acute opioid withdrawal.

• Percutaneous electrical nerve field stimulation is a safe and new treatment option for patients interested in non-pharmacological treatments.

• Stimulation of the auricular nerve fields is proposed to activate the central nervous system afferent autonomic nerve fibers with the intent of mitigating sympathetic activity.

• BRIDGE™ is the first FDA-cleared, drug-free, non-surgical device to use neuromodulation to reduce opioid withdrawal symptoms.

CASE DESCRIPTION

• After a discussion about treatment for her withdrawal symptoms, the patient decided that she would like to try a percutaneous nerve field stimulator designed for the treatment of opioid withdrawal symptoms, called “BRIDGE”.

• We informed her that there is currently limited evidence for use in withdrawal symptom management or treatment of opioid use disorder.

• We informed her that the experimental device has never been used in the setting of multiple sclerosis after literature review.

• She decided she would proceed with trial of the nerve stimulator with standing orders for Suboxone and other comfort medications if needed.

• She had a subjective opioid withdrawal scale (SOWS) score of 27 prior to the implementation of the Bridge device.

• The application of the Bridge device was performed following the instructions from the device manager.

• After 15 minutes, she had mild improvement of her SOWS score to 23, with her main symptom improvement being the cessation of rhinorrhea.

• Four hours after the implementation of the nerve stimulator, her withdrawal symptoms continued unchanged, and she utilized Suboxone with good improvement.

• During a following clinic visit 2 days after the initial visit, the device was removed by the clinician.

• She maintained sobriety, adequate craving control, and neuropathic pain control with Suboxone and regular attendance of clinic-sponsored recovery group.

DISCUSSION

• There is currently limited data on the use of percutaneous nerve field stimulators in the stabilization of opioid withdrawal symptoms.

• It is rare to find an opioid use disorder patient without confounding medical, psychiatric, or social issues that will potentially complicate treatments.

• Further studies should be done to ascertain which patients may be suitable and receive benefits from the new treatment.

• Clinicians should provide standard-of-care withdrawal treatment medications in conjunction with any patient receiving a percutaneous nerve field stimulator to manage any potential withdrawal symptoms and help optimize chances of sobriety.

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