Opioids provide low evidence of pain relief for migraine

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Credit: Sasha Wolff/Wikipedia

Evidence that opioids provide pain relief for migraine headaches is low or insufficient, a large Mayo Clinic meta-analysis published recently in

JAMA has found. However, some newer therapies, along with established migraine treatments, were associated with moderate to high evidence of pain relief.

The meta-analysis - which combined results from multiple scientific studies - included 15 systematic reviews and 115 randomized clinical trials of 28,803 patients. While the researchers note that this study provides a good starting point for treatment conversations between patients and providers, many patients respond differently.

"Choosing a treatment for migraine attacks requires an individualized approach for each patient," says lead author Juliana VanderPluym, M.D., Mayo Clinic neurologist. "Living with migraine can be challenging, and sometimes debilitating, for millions of people worldwide."

Migraine headaches can cause severe throbbing pain or a pulsing sensation, usually on one side of the head, often accompanied by nausea, vomiting, and extreme sensitivity to light and sound. A migraine usually lasts from four to 72 hours, if untreated. About 12% of people worldwide suffer from migraine, including 18% of women, according to the Migraine Research Foundation.

The study found that triptans, NSAIDS (nonsteroidal anti-inflammatory drugs such as aspirin, diclofenac, ibuprofen and ketorolac), or a combination of the two provided the largest evidence-base for relief at two hours, as well one day after symptoms began. Two newer treatments recently approved by the Food and Drug Administration (FDA), ubrogepant and rimegepant, had moderate to high strength of evidence and mild side effects. Lasmiditan, another new therapy, also had a high strength of evidence, but also was associated with a significant risk of adverse events.

Among devices, external vagus nerve (located at the side of the neck)

stimulation and remote electrical neuromodulation (located over the arm) each had moderate strength of evidence. External trigeminal nerve (located over the brows) stimulation and transcranial magnetic stimulation (located over the back of the head) showed slightly less strength of evidence.