Lose-Dose Naltrexone to Treat Post-Herpetic Neuralgia in an Elderly Patient

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Introduction

Patients with chronic peripheral neuropathic pain like post-herpetic neuralgia are commonly managed with multimodal analgesic regimens, including antiepileptic or antidepressant medications, opioids, and sympathetic blocks. Despite these treatments, quality of life is often severely affected by side effects and increased tolerance to drugs. At high doses (50-100 mg), naltrexone acts as an opioid and alcohol antagonist (2). Recently, its use in treating chronic pain, particularly central sensitization or nociplastic changes associated with conditions such as fibromyalgia, migraines, and neurodegenerative diseases, has been studied (2). Although the mechanism of analgesic action of low-dose naltrexone (LDN) is unclear, recent studies have suggested its novel anti-inflammatory effects at doses of 0.1 to 4.5 mg. LDN has demonstrated efficacy in alleviating pain associated with central chronic pain conditions. In these conditions, LDN appears to block glial cell activation associated with central sensitization and reverse nociplastic changes related to persistent hyperexcitability of the nociceptive circuitry, contributing to ongoing chronic pain (3).

Case Report

An 81-year-old female initially presented to the clinic for PHN 7-months following her primary outbreak in June 2020.

- right-sided C2 dermatome distribution
- hyperesthesia and intermittent neuropathic pain which worsened at nighttime

Trialed on gabapentin, tramadol, and ibuprofen which did not adequately treat her pain. She was then started on pregabalin 50 mg nightly which was titrated upwards to 75 mg TID which provided moderate pain relief. However, the patient experienced marked sedation as well as cognitive dysfunction.

Discontinued pregabalin and was started on oral LDN at 0.5 mg once at night for 3 weeks before being progressively uptitrated to 2 mg for the next 2 years, during which time she reported minimal pain relief. Her dose continued to be increased up to 3 mg but she reported a negligible difference in pain relief. She was switched to 2.5 mg LDN twice a day (BID) which provided moderate pain relief and better coverage through the day without any reported side-effects.

Discussion

In patients with post-herpetic neuralgia, LDN can be used as an alternative for patients that experience significant side effects from conventional medical management given that LDN has a low side-effect profile and is relatively safe for long-term use. This patient experienced no significant side effects related to her LDN regimen and experienced a comparable pain relief compared to standard pharmacological management. This case report highlights the possible application of LDN in patients with post-herpetic neuralgia and further studies are recommended to quantify and qualify the degree of pain relief and prevalence of side-effects in a larger case-controlled cohort setting.

References

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