Medical Marijuana and the Discontinuation of Opioids in a Patient with Neuropathic Chronic Pain

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The current opioid epidemic has led physicians to seek alternative pharmacologic modalities in pain management. Existing evidence consists of only a few controlled trials with a limited numbers of patients. The use of cannabinoids in conjunction with opioids has been shown to improve pain control. Currently there are no studies demonstrating the complete cessation of opioid use with cannabinoids. We present a case that demonstrates the possible benefits of medical marijuana in a chronic pain patient. While treatment with high dose opioids for 15 years provided mild relief, marijuana resulted in exceptional pain control and cessation of narcotic use. This case begs the question: should we be starting medical marijuana earlier for the treatment of chronic pain in an effort to avoid the risks associated with traditional interventions and medications?

The patient is a 69 year old female with history of multiple lumbar disc herniations resulting in lumbar radiculopathy. Her MRI was notable for multilevel severe degenerative disc disease. Over several years the patient failed medical management as well as invasive management. She was initially treated with an L4-L5 laminectomy, followed by L5-S1 laminectomy with minimal improvement. Subsequently, the patient was started on medical management with MS contin and titrated to an adequate dose of 60mg BID. In addition to opioid pharmacotherapy patient was initiated on duloxetine and trazodone in an attempt to achieve improved pain control. She went on to receive a spinal cord stimulator with mild improvement. The patient’s pain score was reduced to a 5/10 at its best, however this was not acceptable for our patient. Subsequently she received caudal steroid injections, again without adequate pain relief.

After multiple failed interventions and inadequate pain control with the existing medications, the patient was started on sublingual medical marijuana. Over the course of 2 months the patient was weaned off of all opioids, reported a pain score of 2/10, and is able to perform her ADL’s without limitations from pain.

With newer variations having higher cannabidiol:tetrahydrocannabinol ratio, patients are able to receive pain control without psychotropic effects. The CB1 and CB2 receptor, target receptors of marijuana, are located in nociceptive areas of the CNS; stimulation of these results in decreased pain. THC and CBD have multiple potentially beneficial effects in chronic pain beyond receptor stimulation. These effects include anti-inflammatory effects without inhibition of COX-1 and COX-2, sparing GI and cerebrovascular effects. They have also shown a reduction in NMDA responses, anti-TNF- properties, while also effecting serotonin and dopaminergic balance; all of which are involved in many chronic pain disease states. In addition to analgesia, cannabinoids have benefits including anti-emetic properties, appetite stimulation and neuroprotection. Being a relatively new agent, the
possible adverse effects include, but are not limited to, psychotropic effects, potential for abuse, and drug-drug interactions. Despite the need for further research, our case demonstrates the possibility of satisfactory pain relief with the use of medical marijuana and opioid termination.