

Medical cannabis

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Aggarwal, et al. have presented in this issue of the *Journal of Opioid Management* an epidemiological survey accomplished via a retrospective chart review of 139 adult patients with chronic pain accessing treatment with medical cannabis.¹ This manuscript is timely and important since there is an expanding body of both laboratory and clinical literature often supporting the efficacy of cannabis in mitigating pain even in patients with neuropathic pain.^{2,3} Medical cannabis programs now exist in 13 States in the United States and these authors report that numbers of authorized medical cannabis users in the State of Washington are in the 20,000 range. A recent survey in Canada has shown that 10 percent of patients with chronic non-cancer pain currently used cannabis for pain relief.⁴ With such a large number of users of medical cannabis, there is a concerning but not unexpected paucity of data enabling a risk-benefit analysis not only for providers wishing to facilitate an informed decision by their patients but for patients suffering from intractable chronic pain.

Proponents of medical cannabis, including Aggarwal et al.¹ cite its safety but there are clearly uncertainties of safety, composition and dosage. In France the Department of Health has advised cannabis smokers of the respiratory risk associated with the common practice of adding glass beads or sand to cannabis in order to increase its weight by sellers.⁵ Cannabis has been linked in a dose-dependant manner with elevated rates of myocardial infarction and cardiac arrhythmias. It has been implicated in the occurrence of depression, anxiety, psychosis, bipolar disorder, and an amotivational state. It has teratogenic effects on the developing perinatal brain, is associated with chronic bronchitis, reduced lung density, lung cysts and has been linked to cancers at eight sites.⁶ The evidence supporting all of these risks is controversial. The actual risk of their association with cannabis use may be proven or disproven. It may be possible to diminish risk such as the possible carcinogenic and respiratory risk by

using vaporizers. There is importantly evidence of abuse, misuse, and addiction now supported by fMRI findings.⁷

While there is some high quality data addressing efficacy, there is little high quality data describing safety and many important questions remain unresolved. State medical cannabis laws bypass the usual FDA drug approval process which may include small animal testing, large animal testing, human toxicity studies, dose response studies and efficacy and side effect studies and jump directly to post-marketing surveillance studies. Ideally, the analgesic constituents of inhaled cannabis will ultimately be identified; the proper sequence of new drug assessment can be followed; and, the active analgesic ingredient(s) can be administered like any other drug. While awaiting these developments, many patients who might benefit from the use of inhaled cannabis will suffer intractable pain. Patients and their caregivers with specified medical conditions are, and many believe appropriately, being given exemptions from criminal prosecution to obtain or grow cannabis for their own use, at their own risk. Others believe that advocacy is a poor substitute for scientific analysis.⁸

Evidence based guidelines do not exist to guide practitioners in the use of medical cannabis. Guidelines for the use of opioids address risks and benefits, risk stratification, dosage, use when driving, use in pregnancy, monitoring, and a variety of other issues that pertain to the use of medical marijuana.⁹ Despite a dearth of quality studies, it is still possible to make recommendations regarding the use of medical cannabis based on existing evidence and expert opinion.

The study by Aggarwal et al. has several limitations. The apparent disregard of the cognitive, psychomotor, and "high" (euphoria) or dysphoria associated with cannabis use; the scientific validity of the survey instrument; what may appear as a strong bias of the authors towards medical cannabis in the

manuscript and especially; the lack of support for conclusions reached by the authors. Aggarwal et al.¹ opine that their data helps to “deconstruct mythologies about the kinds of patients accessing medical cannabis including their young age or their propensity to malingering or feign disease”. This statement is not clearly supported by the material presented in this manuscript. Aggarwal et al.¹ cite similarity of medical cannabis use to opioid use for chronic pain. They present a heterogeneous population of chronic pain patients that likely includes patients abusing, misusing, addicted to, and or diverting cannabis similar to an opioid prescribed chronic pain population. To assume this is not the case is to repeat the same errors made when initially using opioids to treat chronic pain. Risk stratification, careful assessment of pain relief, function, compliance and mood are essential elements of a medical cannabis care model.

Society has placed the burden of deciding who is an appropriate candidate for the use of a nonstandardized drug, with unproven efficacy, unknown safety concerns, and without rational guidelines on clinical providers. Aggarwal et al.¹ have helped by providing a snapshot of a clinical practice of chronic pain patients using cannabis and reporting pain relief and lack of side effects. This is an excellent starting point for further research. Clinical practice guidelines for the use of medical cannabis in patients with chronic pain should be a priority for States with medical cannabis programs.

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