

NEW PERSPECTIVES

The Medical Cannabis Evaluation

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I first began recommending cannabis regularly in 2004. That year, a federal District Court decision (Conant vs. Walters) upheld an appeal allowing physicians the freedom to recommend cannabis as medical treatment.¹ We could recommend cannabis use to patients as long as we performed a good faith evaluation and didn't "aid and abet" in the still-illegal procurement of cannabis. An occasional patient would request cannabis to relieve pain, nausea, or the side effects of prescription medication. The process was not foreign to me. Proposition 215, the Compassionate Use Act, had made medical cannabis recommendations a possibility as early as 1996. The occasional request was a refreshing change to patient desires for opiates or benzodiazepenes. To prescribe cannabis, our hospital had a form letter that simply required my signature and date.

I attended medical school at Boston University (class of '95). We were taught very little about cannabis. The curriculum did not allow for an in-depth understanding of the clinical and pharmacological effects of botanical therapies. When we approached the topic in 1992, my second-year pharmacology professor described cannabis simply as a Drug Enforcement Agency (DEA)-classified schedule I substance with a high potential for abuse and no medicinal uses. There was no mention of the recent discovery of endocannabinoids, their relationship to phytocannabinoids or the CB1 and CB2 receptors, nor the therapeutic significance of those discoveries. The many levels of missing information struck a chord of concern with me. However, there was too much to learn and not much time for debate.

Table 1. Cannabis-based Medical Products

Flower (Plant)
Oil, Extracted
Capsules
Tinctures
Creams/Lotions
Patches

In 1996, California was the first state to allow its patients to use cannabis as medicine. The epicenter of this movement was the San Francisco Bay Area. At the time, I was completing a residency program at the San Francisco General Hospital. Our community had seen many young people die of AIDS. As a physician, requests for compassionate care at the end of life were a regular occurrence. HIV-positive and AIDS patients would confide to the more open-minded doctors that they used cannabis primarily to ameliorate prescription medicine side effects—sometimes for pain or to increase appetite—and often to relieve the stress and anxiety associated with living with a terminal diagnosis.

In 1997, UCSF professor Donald Abrams, MD, received funding from the National Institute on Drug Abuse (NIDA) to conduct clinical trials of the short-term safety of cannabinoids in HIV infection.² Then, as is still true today, NIDA typically funded studies that elucidated the abuse potential of drugs. In this instance, NIDA's concerns focused on whether cannabis use would alter the concentration and effectiveness of anti-retroviral drugs through drug interactions. Dr. Abrams' study countered these concerns by concluding that there was no evidence that smoked and oral

cannabinoids were unsafe for people with HIV infection with respect to HIV RNA levels, CD4+ and CD8+ cell counts, or protease inhibitor levels over a 21-day treatment. His research also suggested that some cannabis users suffering from HIV wasting syndrome seemed to improve. Dr. Abrams' clinical trial, among others, provided the earliest evidence of cannabis' medical and therapeutic potential.

After the Conant vs. Walters decision, I established MediCann, a group practice that focused on evaluating cannabis-using patients. The demand was nearly instantaneous, and our practice grew to a network of offices throughout California. Many physicians observed the symptom relief and beneficial effects of cannabis and became advocates for its therapeutic use. Almost 12 years later, MediCann has evaluated more than 200,000 patients. MediCann physicians learned about the efficacy of cannabis from this experience, and some eventually went on to create their own medical cannabis evaluation practices.

Ninety-five percent of patients who present to our practice have already used cannabis. They have experimented with the plant and observed a benefit. They describe this benefit in detail and present with a practiced treatment plan. Unlike most pharmaceutical treatments, compliance in this situation is not an issue. The physician's role focuses on observing the course of illness and educating the patient on the best use of medical cannabis. The understanding of best use comes through anecdotal cases shared among patients and practicing cannabis-recommending physicians.

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What is conspicuous in its absence is a clearly defined dose in mg per kg of delta-9-tetrahydrocannabinol (THC), cannabidiol (CBD), or the other cannabinoids in the plant. Typically, a physician advises patients to initiate treatment with low doses and titrate up to relieve symptoms. Larger doses can have unpleasant side effects including somnolence, anxiety, or paranoia; however, no one has died from an overdose of cannabis alone. Toxicology studies have been inconclusive and may suggest a high LD50 for this drug.

The problem in determining appropriate dosage has other considerations. Many patients mistakenly titrate their dose to the psychoactive “high” rather than symptom relief. New users may reject cannabis, as they suffer either no effect or unwanted side effects from inappropriate doses. As a result, a community of scientists, clinicians, and cannabis-industry experts has formed a non-profit research group called the Clinical Endocannabinoid System Consortium (CESC). This is where I first met and teamed up with John Abrams, PhD, a biochemist who has had a successful career specializing in immunology. Our first program, The Dosing Project, aims to determine appropriate symptom-relieving doses. We believe that by incorporating analytical laboratory data for phytocannabinoid concentrations in specific medicinal cannabis products voluntarily selected for use by participating subjects we can determine statistically significant weight-based dosing regimens. In this initial proof-of-concept study, subjects will self-report clinical outcomes for a narrow range of indications. There are many patients who successfully use cannabis in a consistent manner. An observational study like The Dosing Project is expected to provide clinically useful information.

As with most medical visits, the physician begins the medical cannabis evaluation with a history of

the presenting medical condition and a physical exam. Subjective and objective measures of the current symptoms should be charted. The clinical record becomes even more valuable in documenting a course of illness and determining what medicinal trials should be attempted. Together, physician and patient are discovering the effect of cannabis as it is being used rather than expecting predetermined results. A good medical cannabis evaluation evolves into a discussion of cannabis use patterns. The patient is asked what type of cannabis product is being used, a preferred mode of administration (i.e. inhale, ingest, apply), and frequency of use. Follow-up visits are scheduled as needed. Some patients feel comfortable with their use pattern while others may want to discuss adverse outcomes or success stories. The California Medical Association requires follow-up visits at least annually.

Some states may have a mandatory patient registry. California has a voluntary registry. The physician produces a recommendation form letter, and the patient uses that letter to access cannabis dispensaries, grow his/her own plants, or register with the state. Aside from growing your own plants, the process of obtaining medical cannabis is not completely clear. States are still developing laws for cultivating, manufacturing, distributing, transporting, and storing marijuana.

Pharmaceutical companies are also participating in the development of cannabis as medicine. Dronabinol is the first product introduced by the pharmaceutical industry. It is a synthetic THC suspended in sesame oil and presented as a capsule. However, since cannabis contains a multitude of chemicals that act in synergy, the second-generation pharmaceutical products are plant based. Sativex is a cannabis plant extract in sub-lingual spray that has been approved for the treatment of spasticity from

multiple sclerosis. Interestingly, GW Pharmaceuticals, the English company that created Sativex, is considered the largest cultivator of cannabis in the United Kingdom.

Recommending cannabis is on its way to becoming a standard part of physician practice. The effect of phytocannabinoids and terpenoids on the endocannabinoid system is emerging in the curriculum at some medical schools. Physicians now have another option that I believe can reduce pain and moderate inflammation, prevent seizures, improve diabetic glucose control, and possibly even treat cancer. An endocannabinoid specialty is in the nascent stages of development. Discussion is emerging among experts of a possible endocannabinoid deficiency as an underlying component of irritable bowel syndrome and fibromyalgia.³ In the same way that most physicians are able to treat thyroid disease or control blood pressure, they should also now be able to appropriately recommend cannabis. It's been 20 years since California's Proposition 215 was passed as a compassionate act. Medical cannabis use has transitioned from a social act to scientific endeavor. As always, the wellness of our patients is our first priority. There is still much to learn.

References

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