

O'Shaughnessy's

The Journal of Cannabis in Clinical Practice

BeyondTHC.com

Winter/Spring 2013

Anecdotal reports of benefit abound

Doctors stress need to document anti-cancer effects of Cannabis 'oil'

By Fred Gardner

Increasing numbers of people have been using Cannabis "oil" — plant extracts consisting of 50% or more THC and/or CBD— to treat conditions ranging from mild rashes to potentially fatal cancers.

Reports of success are circulating among medical Cannabis users and on the internet. They gain plausibility from a parallel stream of papers published in scientific journals establishing that cannabinoids have anti-tumor effects on the cellular level and in animals. (See "The Anti-Cancer Potential of Cannabinoids," page 4.)

The anti-cancer properties of cannabinoids were a recurring theme at this year's meeting of the International Cannabinoid Research Society, and also in a course for physicians presented Oct. 24 at the University of California San Francisco. One speaker, Jeffrey Hergenrather, MD, described a particularly dramatic case seen by a San Diego colleague: a 90% reduction in the size of an infant's brain tumor achieved over the course of a year by parents applying hemp oil to the baby's pacifier before naptime and bedtime. (The illustration at right includes a more recent scan showing continued tumor regression.)

Aptly dubbed "MMJ13001A" on the UCSF website, the half-day course on cannabinoid medicine included talks by three researchers whose findings about cannabis and cancer have been under-reported, to put it mildly: Stephen Sidney, MD, director of research for Kaiser-Permanente in Northern California; UCLA pulmonologist Donald Tashkin, MD; and Donald Abrams, MD, Chief of Hematology-Oncology at San Francisco General Hospital. (Additional coverage starts on page 12.)

Some 60 doctors received continuing medical education credits for attending the half-day course at UCSF's Laurel Heights auditorium, which was organized by the Canadian Consortium for the Investigation of Cannabinoids, with help from Abrams and the Society of Cannabis Clinicians, and reprised the next day in Santa Monica (MMJ13001B).

A very interested auditor at the UCSF session, Michelle Aldrich, had used cannabis oil as a treatment for lung cancer. Her first-person account of the experience starts on page 18 of this issue. Donald Abrams, who consulted on Aldrich's case, says, "The fact that Michelle didn't have cancer that could be located [after using the oil] is a bit unusual in someone who started treatment with an advanced stage. I don't usually see that in my patients. Did the cannabis oil make a difference? We don't know because we don't have a controlled study."

Abrams has met with a UCSF neurooncologist "to discuss whether or not we should do a clinical trial adding oil to chemo for patients with glioblastoma [a brain tumor that is usually fast-moving and fatal]. Manuel Guzman's studies have shown that cannabinoids have great potential in treating brain tumors."

Undoubtedly Dr. Mahmoud ElSohly, who grows marijuana for the National Institute on Drug Abuse, can produce a uniform, highly concentrated extract for research purposes. But whether or not NIDA will let Abrams have some is uncertain.

Abrams has jumped through bureaucratic hoops before. He has obtained all the necessary approvals and funding to

Dosing Instructions



MICHELLE ALDRICH (LEFT) AS VALERIE CORRAL of WAMM writes out a dosing regimen for using cannabis oil as a treatment for lung cancer. Aldrich's remarkable first-person story starts on page 18.

conduct clinical trials involving cannabis, and published his findings in peer-reviewed journals. Because chemotherapy has a measurable benefit, he says, "There's no way we could get approval for a study that evaluates cannabis oil as a cure for brain tumors without giving patients temolozide [the standard treatment for glioma]."

"A 'cure' in cancer means five years of disease-free survival," Abrams reminds us.

So what Abrams has in mind is "a study of the pharmacokinetic interaction between cannabis oil and temolozide." Participants would be patients undergoing treatment for glioblastoma. Researchers would measure the level of temolozide in their blood before and after adding cannabis oil to their regimen. The primary objective would be to establish safety —to confirm that large cannabinoid infusions do not interfere with the body's ability to process temolozide.

The year of the concentrate

Use of 'Dabs' Gaining Popularity

By Jeffrey Hergenrather, MD

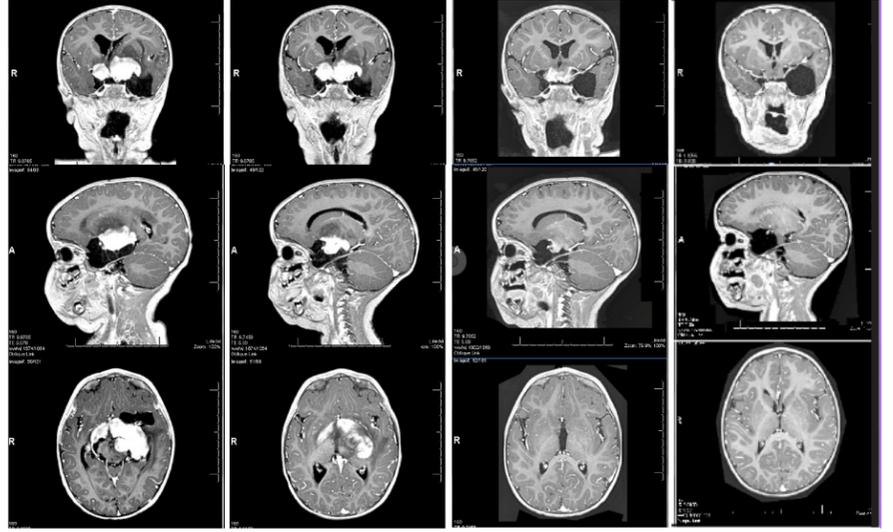
No one listening to the radio or watching TV in the '50s and '60s can ever forget the jingle, "Brylcreem, a little dab'll do ya..." Brylcreem was a formulation of lanolin and grease that enabled men to comb their hair and have it stay in place. Hippie influence on the culture dramatically curtailed the demand for Brylcreem. Perhaps some entrepreneur in the cannabis industry should now buy the rights to the jingle, because "dabs" have become the latest rage in the administration of cannabis.

A single deep inhalation has a stronger and faster psychoactive effect than any other delivery method can provide.

The popularity of high-THC "dabs" —also known as "waxes"— is largely a youthful and recreational phenomenon. The user inhales a small amount of vaporized and/or burned cannabis concentrate —a dab— that has been placed on a hot "nail" with a tiny spatula or needle. A single deep inhalation has a stronger and faster psychoactive effect than any other delivery method can provide. In other words, the user gets more stoned and the dabs provide a mild "rush."

Some regular recreational users say that smoking the herb could no longer get them high —tolerance had built up— but the use of dabs restored their ability.

Pipes are now being designed with appendages for positioning the nail next to the waterpipe bowl so that the pipe is ready for a dab as the user inhales. The nail is heated with a torch. When the dab is placed on the nail it vaporizes immediately in one brief puff.



August 2011 November 2011 January 2012 December 2012

MAGNETIC RESONANCE IMAGING SCANS display coronal (top row), sagittal (middle row) and axial (bottom row) views that document the regression of an optic pathway glioma (white area near center of the brain) by more than 95% over the course of 16 months. Column of three images at left are from initial MRIs taken in August 2011. Most recent scans (column at right) were made in December 2012. Gliomas are known to be sensitive to cannabinoids. Jeffrey Hergenrather, MD, reported that the sole treatment used to achieve these results was cannabis oil applied to the child's pacifier twice daily before nap and bedtime.

ity to process temolozide.

Another objective would be to document examples of cannabis oil expediting or promoting tumor reduction. Such a 'signal' might justify a trial of cannabis oil on its own.

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Chronic exposure to low-grade butane extracts should be considered poisonous. If it smells like lighter fluid, don't use it.

Recently I was on a panel devoted to dabs at a "Cannabis Cup" organized by *High Times Medical Marijuana* magazine in Richmond, California, and I learned about the technology from the experts.

Dab concentrates are made from oil extracted from cannabis plants by a solvent. The most widely used solvent is butane —better known, although not entirely accurately, as lighter fluid.

Butane is a petroleum product with a very high vapor pressure —it evaporates very quickly into the air once released from the can. When cannabis plant material is drenched in butane, its oils dissolve and can be captured in a container. Instantaneously, the butane evaporates leaving only the oil behind.

Spoiler Alert

There are real problems with this seemingly simple procedure.

Butane extraction is against the law. People are serving

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THE "DABS" PANEL AT THE HIGH TIMES CANNABIS CUP (from left): Doug Fresh of Hitman Glass, Vernon Phillips of Phillips Rx, Jeffrey Hergenrather, MD, of the Society of Cannabis Clinicians, Selecta Nikka T of Esssential Extracts, and Bobby Black of High Times, the moderator. The discussion was part of a trade show held in Richmond, CA in June.

Evaluating Cannabis Oil from page 1

Abrams does not want to promote false hope. "I do integrative oncology," he says, "so I hear about 'miracle cures' all the time. I hear about about noni juice and



DONALD ABRAMS, MD

graviola and many products. What's disturbing is to hear people talking about cannabis oil as a 'cure,' because a cure in cancer means five years of disease-free survival and people have not been using cannabis oil for five years.

"I think it does a disservice to the cannabis community to make claims that are not supportable. I may be seen as a nay-sayer but I'm not. I say 'Let's study it.'"

Doctors and Dispensaries

Doctors who see cannabis-using patients and dispensaries that provide their medicine are well positioned to advance research by collecting "observational data" that could justify clinical trials, says Abrams.

To do this properly, he advises, "You can't collect data on only the patients who respond well. You have to collect data from everyone who undergoes the intervention. And data collection has to be sequential. If everyone who got a cannabis-oil product filled out a standardized case-report file at set time points during their treatment, and provided information from their conventional therapist showing the effect on their cancer, then we would have very useful data."

If the data contained "a 'signal' suggesting that the intervention may have value and should be pursued further, the National Cancer Institute Office of Cancer and Complementary and Alternative Medicine (OCCAM)'s Best Case Series Program should be notified." The program evaluates therapies for which there is evidence of benefit.

"Nothing can be 'complementary' and 'alternative' at the same time," Abrams points out.

Unfortunately, the Best Case Series Program will not accept information on patients who, in addition to using cannabis oil, undergo conventional treatments (radiation and/or chemotherapy). Abrams, who is on the editorial board of OCCAM's webpage, regrets the requirement that alternative therapies reviewed by the Best Case Series Program be evaluated as solo acts. "Nothing can be 'complementary' and 'alternative' at the same time," he points out. "What we're really trying to do is integrate complementary interventions into alternative care."

As for patients who are having beneficial responses using cannabis oil without conventional therapy, Abrams hopes that data on their cases will be submitted to NCI OCCAM's Best Case Series Program to provide a 'signal' that clinical trials are called for.

"Anyone who is saying that they're seeing people cured of cancer with cannabis oil alone," says Abrams, "has a responsibility to report those cases to the NCI's Office of Cancer and Complementary Medicine. That would be 'putting your money where your mouth is.'"

The Controversial Mr. Simpson

The medical benefits of hemp oil (AKA cannabis oil and hash oil) were extolled in a video called *Run From the Cure*, made in 2008 by Rick Simpson, a retired hospital worker from Maccan, Nova Scotia.

On the 58-minute video, which has been widely viewed on YouTube, Simpson described having been diagnosed with three skin cancers. One lesion, close to his right eye, had been surgically removed but appeared to be coming back.

Simpson knew that cannabis was medically useful because he used it to cope with a terrible ringing in his ear (tinnitus) brought on by a head injury. Recalling that

a suppressed U.S. government study had ascribed anti-cancer effects to THC, Simpson decided to make a highly concentrated cannabis extract and apply it to the three spots on his face. It wiped out the two lesions that had yet to be removed surgically, as well as the one that had reappeared.

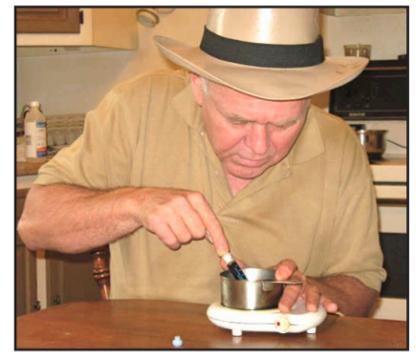
When Simpson reported his good news to his doctor's receptionist (who was also the doctor's wife), instead of being pleased, she seemed frightened—a harbinger of how the medical and political establishments would respond to his assertion that hemp oil has anti-cancer effects. Simpson tried and failed, he says, to interest the Canadian Cancer Society in his results.

Simpson gave his oil to several residents of Maccan who also reported great benefit. When officers of the Royal Canadian Legion's local chapter made public statements praising Simpson's product, they were removed from their posts and denied use of the meeting hall.

"We have supplied it to dozens of people," Simpson says about hemp oil in the video. "Medical miracles are a common occurrence... It has brought many people right off their deathbeds." He avows that the oil can be used to treat "any condition involving mutating cells."

Epstein explains that the medical establishment's approach—screening, diagnosis and damage control—is profitable.

The video includes brief references to scientific papers showing that cannabinoids have anti-cancer effects, including studies by Guzman and McAllister. There is strong



RICK SIMPSON demonstrating the not-recommended way to make hemp oil.

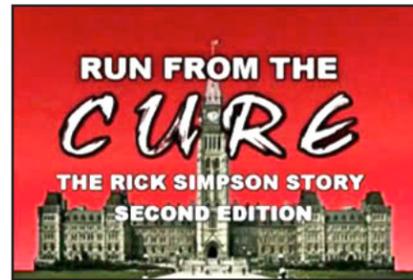
footage of Samuel Epstein, MD, author (with Harvey Wasserman) of *The Politics of Cancer*. Epstein explains that the medical establishment's approach—screening, diagnosis and damage control—is profitable. "You wait till they get the cancer and then you try and treat it. The more disease there is, the greater the profit."

Run From the Cure shows Simpson making hemp oil, preceded by a jarring disclaimer: "Making your own oil is extremely dangerous and we do not approve of this method." Then he shows and tells you how, and vouches for its efficacy.

The recipe goes like this: "Place Good bud in a plastic container. Dampen with solvent. Crush bud material. After crushing add more solvent till it's completely covered. I use pure naphtha but 99% isopropyl alcohol also works as a solvent. Let the THC dissolve into the solvent. Drain and pour through a coffee filter. Make sure the area is well ventilated where you're going to boil off the solvent... A pound of good bud yields about two ounces. Ingesting this amount over a two-three month period is enough to cure most serious cancers."

Simpson's critics wince over his use of naphtha, a petroleum product that could leave residue in the extracted oil. They cringe over his claim that hemp oil is "enough to cure most serious cancers." And they fear that the implication in the title "*Run From The Cure*," plus disparaging remarks made in the video about radiation

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CME Course from previous page

a physician with good knowledge of cannabis use and consider cannabis use under his guidance. Improve patient education.

"Better assist patients with cessation. More CBD info. More education re: chronic bronchitis and smoking cannabis. More vaporization education.

"Increase frequency of discussion. More understanding of effects between THC/Cannabis and opioids. Large pain practice with possible use. Look into using cannabidiol. Look into using vaporization.

"I'm comfortable using with opiates.

"Recommend to patients with GI disorders. Recommend to patients with anxiety/sleep disorders. Recommend to patients with certain cancer.

"I will refer to medical marijuana as cannabis.

"Screen patients. Be more openminded about the uses/benefits of cannabis in medical treatment of patients.

"I plan to prescribe it more often as indicated. Time spent on eCB function. Referrals for specialty care. Topical use.

"Try to get more oil med. I will get copy of medical liability insurance form and use it.

"I will be able to advise patients regarding lung is-

sues (increase use, no increase risk COPD, cancer).

"Will offer THC Rx to use in Crohn's patients. Broaden indications (beyond pain) for cannabis. CBD/THC. Better able to answer questions or concerns that might come up.

"Confirms my existing practice.

"More effectively argue with my colleagues that there is some role of some patients to use medical cannabis in chronic pain mgmt."



UC SAN FRANCISCO NEWSPAPER carried an article about CBD in July 1999, focused on a study of its effects in the liver by pharmacologist Lester Bornheim, PhD. Some stories take a long time to break through. Prohibition requires censorship, blacklisting, marginalizing, etc.

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The NCI Website Brouhaha

PDQ, Physician Data Query) the National Cancer Institute's "comprehensive cancer database," contains updates on a wide range of topics and a registry of some 27,000 clinical trials from around the world. It has a page devoted to "Complementary and Alternative Medicine (CAM)" treatments for cancer.

NCI's PDQ CAM webpage lists 19 complementary and alternative cancer therapies, from Acupuncture to Spirituality. The section on "Cannabinoids and Cancer" was written by Donald Abrams, MD, with input from the entire NCI PDQ CAM editorial board. It went online in March 2011. It included such bold assertions of fact as "The potential benefits of medicinal Cannabis for people living with cancer include antiemetic effects, appetite stimulation, pain relief, and improved sleep."

Drug policy reform advocates publicized the newly added material as recognition by a federal agency that marijuana is not medically useless and therefore does not belong on Schedule I. The National Institute on Drug Abuse requested some wording changes that were made, and the NCI distanced itself from "Cannabinoids and Cancer," disclaiming that it "does not represent a policy statement of NCI or NIH."

Every month Abrams is asked to review new articles showing that "cannabis works against cancer in various in vitro models and sometimes animal systems."

But the body of evidence that cannabis has anti-cancer activity keeps growing and is duly noted on the NCI PDQ CAM website. Every month Abrams is asked to review new articles showing that "cannabis works against cancer in various in vitro models and sometimes animal systems."

In a very thorough report on the NCI PDQ CAM website brouhaha for the American Herbal Council's *Herbalgram*, Lindsay Stafford quoted an assessment of the situation from ethnobotanist Dennis McKenna. "McKenna said he thinks the NCI review will probably, and 'unfortunately,' have very little impact on the scheduling of cannabis. 'These decisions are made by politicians, who as a rule are not scientists or clinicians and are quite happy to ignore scientific evidence when it's inconvenient,' he said, noting mounting scientific concerns about climate change as an example. 'Only when this information becomes widespread enough in the public domain, and is understood by sufficient numbers of people, who then demand changes in the scheduling, will this information make a difference. What will or may also make a difference is when a politician, or a close relative of one, receives significant benefits from cannabis as an adjunct treatment in cancer therapy. Then, and only then, will you see a change.'"

Evaluating Cannabis Oil from previous page

and chemotherapy, will lead some viewers to forego these conventional therapies, which are admittedly hideous but might prove life-saving.

No one denies Rick Simpson credit for bringing hemp oil —and the notion that megadose cannabinoids might provide mega-benefit—to the attention of millions. He has changed the way people think about cannabinoid dosing levels. If today’s megadose becomes tomorrow’s standard dose in treating certain cancers, Rick Simpson will have expedited the process.

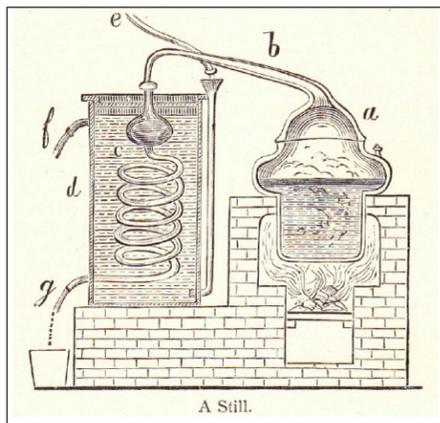
WAMM’s Observational Study

Since the winter of 2009/10, 37 members of WAMM —the Wo/men’s Alliance for Medical Marijuana, based in Santa Cruz, California— have used cannabis oil, which they call “Milagro oil,” to treat various conditions. (*Milagro* means “miracle” in Spanish.)

WAMM was the first recipient of clones donated to Project CBD by plant breeders in 2009. WAMM members grow their herb organically in an outdoor garden. Director Valerie Corral notes with pride that Milagro oil “is made exclusively from our own product...Many of our medicines are created from distinctive heirloom strains.”

The typical Sativex dose is about 41 milligrams per day. The typical Milagro oil dose is between 500 and 1,000 milligrams per day

A man Corral calls “a gifted and compassionate chemist” —John Erickson is not his real name— turns WAMM’s buds and leaves into an oil that is slightly above 50 percent THC and/or CBD in content. The solvent he uses to extract oil from the plant is Everclear —neutral grain spirits.



Batch 08272012
THC 45.3% CBD 2.3% CBC 0.08% THCv 1.19% CBN 0.42% CBG 1.4%

Full Extract Cannabis Oil

A 100% botanical oil extract of the Cannabis plant and flowers. Only food grade ingredients and processes used. Fully decarboxylated and solvent-free. 100% pure Cannabis oil. Ready to use. Oral and topical applications suggested. Nominal oral dose 1/10th (.10) gram. Adjust to suit. Net wt. 3.5 gram

For medicinal use only. Not for re-sale. Keep out of the reach of children and pets. CHSC 11362.5 Prop 215 & SB 420

MILAGRO OIL is WAMM’s name for a product that the distiller also makes for several dispensaries that provide him with plant material. Oil is packed in oral syringes (*below*) containing 3.5 or 1.0 grams. Patients extrude desired dose. To simplify precise dosing, WAMM now produces capsules containing 16.6mg THC and 2mg CBD; 19.1 mg THC and 9.9mg CBD; and capsules made with organic virgin coconut oil and marijuana flour from three CBD-dominant plants: Harlequin, True Blueberry OG Kush, and Omrita Rx.



The oil is then repeatedly distilled over the course of three to four hours. One pound of plant material yields about 75 grams (2.6 ounces) of pure Milagro oil. It is very dark green and has the viscosity of tar at cool temperatures. The delivery system is an oral syringe containing 3.5 grams, from which patients extrude their desired dose. Recently Erickson has added a 1-gram syringe, which makes dosing simpler. His clients include Harborside Health Center, which has dubbed the product “Sungrown Healing Hemp Oil.”

WAMM’s original Milagro oil was, more than 50 percent THC with only trace amounts of CBD. Last year they began producing a CBD-rich oil, too (1.7-CBD to 1.0-THC). The latter was reported to be slightly psychoactive by many patients, although much less so than the Milagro oil. (If you’re wondering why G.W. Pharmaceuticals’ Sativex, a 1:1 CBD-to-THC plant extract, is rarely perceived by patients as psychoactive, bear in mind that Sativex users, on average, ingest 41.6 milligrams per day of plant cannabinoids —21.6 mg of THC, 20mg of CBD. The typical Milagro oil dose is between 500 and 1,000 mgs of plant cannabinoids per day.)

The anti-cancer regimen that WAMM recommends involves ingesting a gram of oil per day —a dose that some people find

unpleasantly psychoactive— for 60 days. It is hoped that in the future, a combination oil made from plants with very little THC will be prove to be much less psychoactive —or not psychoactive at all— and equally beneficial.

For patients who take the oil by mouth, Corral makes “decoctions” of varying strength, cutting the Milagro oil with organic hempseed oil that contains no cannabinoids. Patients start out taking a one-gram decoction that is nine parts hempseed oil to one part milagro oil. When they find the effects tolerable they graduate to a four-to-one ratio. Then, when ready, they take undiluted Milagro oil.

“It may take as long as a month for a patient to be able to tolerate the intensity of the full strength Milagro Oil,” says Corral, who tries to stay in touch with all involved. “So we are developing a combination oil, which consists of Milagro, CBD-Rich Oil, and a new THCA oil that is not at all psychoactive.”

Once patients can tolerate a full dose, Corral says, “We begin a three-month period of observation, during which patients will consume the 60 grams of pure Milagro Oil extract. We find that not every patient will consume the 60 grams; some will take less, some will take more and remain fully functional.

WAMM members often combine the oils with conventional therapies. “We see many turn away from chemical therapies after finding that their cancers are returning or have metastasized,” Corral says. “Still, the oils can be useful when combined with standard anti-cancer therapies.

“Healing is holistic,” Corral believes. “In my opinion, a combination of therapies is most effective. The goal is not just providing an unfavorable condition for cancer cells, it’s far more complex. There are many things to heal. The whole organism must be treated. One of the many things the Milagro oil may do is to help patients tolerate chemotherapy as an adjunct treatment. This may allow them to be more accepting of allopathic medicine. In the best case scenario, they may be able to shift their treatment from the rigors of chemical therapies to natural plant medicines that support the entire system. We may well prove that whole plant cannabis medicines, when

F	G
Condition	Symptoms Alleviated
fibromyalgia, headaches (brain trauma)	lower back
glaucoma	Induced sleep, pain relief associated
breast cancer	
B-cell Lymphoma	
Lyme Disease	neuropathic pain, headaches, body
Degenerative	1.5-2 hrs pain relief
lung cancer	
anxiety, depression	
Chronic regional pain syndrome, bipolar, PTSD	
lupus, diabete	strong effect, long lasting, appetite
Parkinson's Disease	
Multiple Sclerosis	
arthritis, Cere	1x relaxing, sleep inducing for insom
degenerative spine disease, diabetes	
back pain, spi	1+ hr spasm relief
AIDS, pain, anorexia	
HIV	
medullary thyroid cancer	
Multiple Sclerosis	
HIV	pain, nausea, appetite
IBS, nausea	
anxiety, insomnia	
depression, p	Euphoria, tired
anxiety, bipolar, insomnia	
tumor/migraines, fibromyalgia	
amputee, paralysis	
epilepsy	
tendonitis disease, shredding	
HIV	neuropathic pain, body pain, fatigue,
hemophilia, prostate cancer, spinal stenosis	
back/neck pain neck surgery	
Hepatic cancer stage IV, HIV/AIDS	
Cancer	
Stage IV colon cancer	

MEDICAL CONDITIONS that WAMM members have used Milagro oil to treat are listed on spreadsheet from recent observational study. Out of 35 patients, only three (using for breast cancer, epilepsy, and depression/pain) reported no benefit.

ingested in their entirety and containing megadoses of CBD and THC in their acid forms is the answer that we have awaited.”

At the request of Project CBD, Corral and WAMM manager Joe Paquin recently compiled an “observational study” of WAMM members treating various conditions with cannabis oil. Of the 35 patients whose cases they reviewed, eight had used the oil to treat cancer-related pain, depression, and nausea. In summary:

- A woman of 60 with breast cancer using CBD-rich oil reported no noticeable difference in her symptoms or disease progression.
- A woman of 65 with B-cell Lymphoma who used oil of both ratios experienced between 90 minutes and two hours pain relief, and increased energy. The Milagro oil provided more relief of all symptoms without psychoactivity. Reduced opiate use. Living well despite significant loss of mobility. Continuing chemotherapy.
- A man of 70 using only flour-based capsules for lung cancer. Twelve years ago he was diagnosed with stage IV lung cancer and underwent chemotherapy and radiation. He then quit all conventional treatment and began relying on a healthy diet and marijuana. Six months ago he was admitted into hospital and told he had two weeks to live. We took him home again and

continued on next page



BUDS FROM WAMM’S GARDEN are crosses from two landrace strains collected in the 1970s — African Queen and Purple Indica. WAMM also grows Harlequin (14.3% CBD, 5.0% THC); True Blueberry OG Kush (17.4% CBD, 5.4% THC), and Omrita Rx (12.3% CBD, 8.6% THC). photos by JD Images, Santa Cruz.

Another Note of Caution

Lester Grinspoon, MD, was contacted in September, 2012 by a 75-year-old man, a scientist from California who had been diagnosed with prostate cancer and chosen to treat it with high strength “Rick Simpson Oil.” In February of 2010, because the patient’s prostate was enlarged and he had a PSA of 8.0 nanograms/milligram, it was biopsied. A Gleason-index-8 adenocarcinoma was found throughout the gland. (The Gleason index shows the aggressiveness of a tumor on a 1-to-10 scale.) He began taking the Simpson Oil with his doctor’s knowledge. He started with a low dose of one drop per day and increased it until he reached 20 drops per day, which he then took for six months. In this period he had two injections of Lupron, a drug used to treat the symptoms of advanced prostate cancer, three months apart. In January 2011, because his PSA levels had gone down dramatically to 0.1ng/ml, another biopsy was ordered. “It was completely negative,” according to Grinspoon, “no abnormal tissue at all.”

The patient provided Grinspoon with the before and after biopsy reports, which Grinspoon shared with a leading prostate oncologist who was skeptical and wondered if this man had undergone some treatment other than cannabis oil. Grinspoon, who had been expressing skepticism about the validity of recovery claims unaccompanied by pathology reports, felt obliged to write up the case. He invited a young colleague, Sunil Aggarwal MD, PhD to join him in preparing a clinical report.

But 20 months after the negative biopsy, the patient called Grinspoon with an update. From the time of the negative biopsy he had continued to take a small dose of concentrated cannabis extract. In September, 2012, difficulty urinating alerted him that something was amiss. It turned out that the adenocarcinoma had returned. He told Grinspoon that he was going back on the full dose of the concentrated cannabis extract.



LESTER GRINSPOON, MD

Grinspoon implored him to also avail himself of an oncologist who could provide him with the appropriate chemotherapy and/or radiation, as required. He has agreed to do this.

And Another: As this issue goes to press Tommie Chong reports that use of cannabis oil has not caused his prostate cancer to stop advancing. We hope something does ASAP.

Evaluating Cannabis Oil from previous page

treated him with CBD-rich capsules made from flour and organic virgin coconut oil, and the anti-cancer diet recommended by Donald Abrams (see "Cancer and Nutrition" in *O'Shaughnessy's, Autumn 2011*). He continues to take capsules made from a combination of Cannabis sativa, indica, and CBD-rich trim. He reports increased energy and ease in sleeping. He has been confined to a wheelchair since he returned from the hospital, but has gradually increased mobility.

- A 48-year-old man, employed, using CBD-rich oil for medullary thyroid cancer found it too psychoactive for daily use. Uses one CBD oil cap at bedtime, reports enhanced mood, increased energy (not desired), sense of well being much improved, reduced motor control, reduced anxiety, no effect on low-level pain and low-level nausea, slightly high feeling, slight dry mouth.

- An 84-year-old man, hemophiliac, with prostate cancer and other serious illnesses, using 1:1 CBD:THC flour capsules, reported initial relief, followed by loss of effectiveness for insomnia and mobility over the course of six or seven months. Recently using capsules from freshly harvested CBD-rich plants and reports "a good night's sleep!" It is suspected that the age of the original batch may have been responsible for its reduced lack of effectiveness.

- A 52-year-old man with HIV/AIDS and hepatic liver cancer (stage IV when diagnosed), used 1:1 Milagro oil for eight months, 1 gram/day. Too psychoactive at first. After one month experienced dramatic reduction in pain, tension, discomfort. Two MRIs showed reduced lymphatic tumor growth. The patient lived well for nearly one year, which was far beyond his prognosis. He had undergone a single chemotherapy treatment (chemoembolization) which resulted in the reduction of the specific liver tumor targeted. Chemotherapy had no effect on the lymphatic tumor. Oncologist suggested that the Milagro oil may have played a role in visible reduction of the lymphatic tumor.

- A 64-year-old man using Milagro oil, .5 gram/day for prostate cancer, also underwent extensive chemotherapy and radiation but PSA increased significantly. Recently began taking CBD-rich flour capsules in conjunction with Milagro oil (one gram/day) and reports reduced pain and insomnia, increased energy and a joyful sense of well-being. As we go to press it is reported that his PSA has been reduced significantly.

- A 65-year-old man using CBD-rich oil and flour capsules —but not high-THC Milagro— for advanced prostate cancer has regained vigor. "He was barely able to speak and now his voice his strong," Corral reports.

- A 65-year-old man began using Milagro

oil for colon cancer (stage IV) in October. Reports significant relief of pain and nausea, sense of well-being and hopefulness.

Other Applications

WAMM members have used Milagro oil beneficially in treating a wide range of conditions and symptoms (see *illustration on previous page*). Corral generalizes that Milagro oil with equal THC and CBD content "offers profound pain relief," usually lasting for an hour and a half to two hours. It is capable of reducing neuropathic pain and enabling people to reduce opioid use. "For those patients who find Milagro stimulating it is taken during the day. In some cases increased psychoactivity was reported. Feeling of well-being was commonly reported."

The CBD-rich oil "appears to relieve insomnia, pain, and acts as an antispasmodic. It, too, has significant effect on feeling of well being."

Corral and Paquin also tracked several WAMM members who use Harlequin (3-to-2 CBD to THC) in smoked form. "All reported it to be effective, manageable and easy to use," they found.

Corral says, "In WAMM we don't really do one thing. Obviously, marijuana is part of our focus —it is a remarkable tool in the effort to relieve suffering, opening the door to many possibilities. But we encourage each other to consider the whole organism, to consider what we eat and the way we think. We engage in exercises to enrich our lives and our health. We participate in the production of medicine for each other from gardening to making the capsules, from cooking for each other to sitting by bedsides of our ill friends.

"WAMM is a true collective. Many members attend either weekly meetings or come into our workspace to share information, interaction, and interdependence that draws them from the isolation that often accompanies illness.

"We work with members to identify and resolve the many issues they face. Patients are encouraged to participate in applications of wellness from exercise to alkalizing our systems (mainly by reducing sugar intake). We support patients to explore all means of healing. This includes allopathic as well as alternative medicine, exercises in neuroplasticity, and simply thinking good thoughts.

"Over the last 20 years in our efforts to provide care for patients we have come to understand that there is much that we can do to affect our healing process. Medical marijuana has many benefits, and one is that it can affect consciousness. It can make us more aware and open to the many tools available in the miracle of self-healing. Since there is no cure for death it may even open us to the unexplored wonder of that inevitability."



VALERIE CORRAL AND FRIENDS

photo by Fred Gardner

Better Drugging Through Genomics

Gina Kolata, a *New York Times* science writer, is the sister of the late Judi Bari, an Earth First! organizer who died of breast cancer (very possibly brought on by all the radiation she received after a 1991 car bombing).

In a front-page story July 18 headlined "Genetic Aberrations Seen as Path to Stop Colon Cancer," Kolata enthused over a new approach to treatment: identifying the mutant genes driving a given tumor and finding drugs that can stop them. Kolata calls Kucherlapati's colon cancer study "the first part of a sweeping effort that is expected to produce a flood of discoveries for a wide range of cancer." She quotes him saying, "We have an opportunity to completely change the landscape."

Another Harvard co-author calls the paper "transformative."

Kolata writes: "For Dr. Kucherlapati, some of the most intriguing discoveries point to new treatment possibilities. For example, about 5 percent of the colon cancer tumors studied had extra copies of a gene, ERBB2, as do many breast cancer tumors. A drug, Herceptin, which greatly helps breast cancer patients with too many ERBB2 genes, might also help cancer patients with the same aberration. Scientists say they would like to put colon cancer patients with the mutation in clinical trials testing the effects of Herceptin."

"The scientists don't how many genetic pathways enable various tumors to develop and how many new drugs will have to be developed to attack them all."

It had previously been determined that 15% of colon cancers have a mutation in a gene called BRAF, which, Kolata notes, "is often mutated in melanoma." So researchers tried to treat colon cancer with a drug that's sometimes effective in treating melanoma —and it didn't work. "But," Kolata goes on hopefully, "these colon cancer patients often have an additional genetic aberration that can be attacked with a different drug, one that blocks the function of a cell protein EGFR." So Kucherlapati *et al* propose treating this subset of patients with both a melanoma drug and the EGFR drug.

"The possibility of helping selected colon cancer patients with drugs that are already on the market 'is actually thrilling,' Dr. Kucherlapati said."

The scientists don't how many genetic pathways enable various tumors to develop and how many new drugs will have to be developed to attack them all. Kolata quotes Dr. S. Gail Eckhardt, head of medical oncology at the University of Colorado saying that the study (of which she was one of more than 200 co-authors) "confirms where some of the drug development should be going."

"WAMM —and healing—is not just about marijuana..."



MARK KINCAID DEMONSTRATES AND EXPLAINS WAMM'S NEUROPLASTICITY EXERCISE: "When I look in the mirror with my peripheral vision it appears that I have two fully functional legs —inside my head. And if I concentrate, a switch in my head will go off where I can 'move' the fingers on my left arm in my head, but they don't literally move. Not yet, anyway." Mark was a police officer in Baldwin Park when he was severely disabled in a motorcycle accident in 1994.

"I have nerve damage which causes burning, crushing, horrible pain. The Milagro oil basically turns the volume down. A lot. It's really good. It's one of the best forms of medicine I've come across. The VA used to give me all kinds of of painkillers and anti-depressants — Vicodins, Percosets, Percodans, Neurontin, Zolof... I still take methadone but I've been on the same dose now for over five years. I think Cannabis helps augment it.

Mark uses half a gram of oil per day, taking either a capsule or a small glob extruded from a syringe, usually at night. "It comes on over the course of an hour, very gradually," he says. The first time he used the oil it was strongly psychoactive "it almost seemed like a mushroom trip. But now I'm totally used to it. At most there's a mild euphoria." He has used WAMM's CBD-rich milagro oil which he describes as equally effective and less psychoactive — "more of a body mellow than a euphoria."

One aim of the neuroplasticity exercise is to promote feeling and, ultimately, some motion in his paralyzed left arm. "When I try to move the fingers on my paralyzed arm, it causes a lot of pain —which is feeling." He has heard that "people with residual limbs, if they have an itch on their toe that they can't get to, you can scratch this toe (*he scratches the foot showing in the mirror*) and it will satisfy the itch. And that's kind of like what goes on in my head. Like, wow, I *do* have another hand there.

"I don't have any issues like that —I don't have any weird itches. I've heard some people feel like their hand is constantly being crushed. Imagine how terrible that would feel. My hand feels like it's flat. I've heard also that people have been able to use this mirror exercise to get that imaginary clench to go away."