Medical Marijuana (cannabinoids) Treat Neuropathy

By: https://www.medicalmarijuana.com

Neuropathy

Neuritis

Neuritis is a general term for inflammation of a nerve or the general inflammation of the peripheral nervous system. Symptoms depend on the nerves involved, but may include pain, paresthesia (pins & needles), paresis (weakness), hypoesthesia (numbness), anesthesia, paralysis, wasting, and disappearance of the reflexes. Causes include:

Physical injury

One common cause of neuritis and subsequent inflammation of the nerves to the toes is the wearing of high-heeled shoes or ill-fitting shoes that bind the toes painfully. This can cause temporary numbness and pain in the affected toes for several days.

Infection:

1. Herpes simplex
2. Shingles
3. Leprosy
4. Guillain-Barre syndrome
5. Lyme Disease
6. Chemical injury
7. Radiation

Underlying conditions causing localized neuritis (affecting a single nerve):

1. Diphtheria
2. Localized injury
3. Diabetes

Underlying conditions causing polyneuritis (affecting multiple nerves):

1. Beriberi
2. Vitamin B12 deficiency
3. Vitamin B6 excess
4. Metabolic diseases
5. Diabetes
6. Herpes zoster
7. Hypothyroidism
8. Porphyria
9. Infections, bacterial and/or viral
10. Autoimmune disease, especially Multiple Sclerosis
11. Cancer
12. Alcoholism
13. Wartenbergs migratory sensory neuropathy

Types of neuritis include:

- Polyneuritis or Multiple neuritis (not to be confused with multiple sclerosis)
- Brachial neuritis
- Optic neuritis
- Vestibular neuritis

- Cranial neuritis, often representing as Bell's Palsy
- Arsenic neuritis

Signs and symptoms

Those with diseases or disfunctions of their peripheral nerves can present with problems in any of the normal peripheral nerve functions. In terms of sensory function, there are commonly loss of function (negative) symptoms, which include numbness, tremor, and gait abnormality.

Gain of function (positive) symptoms include tingling, pain, itching, crawling, and pins and needles. Pain can become intense enough to require use of opioid (narcotic) drugs (i.e., morphine, oxycodone). Skin can become so hypersensitive that patients are prohibited from having anything touch certain parts of their body, especially the feet. People with this degree of sensitivity cannot have a bedsheet touch their feet or wear socks or shoes, and eventually become housebound. Motor symptoms include loss of function (negative) symptoms of weakness, tiredness, heaviness, and gait abnormalities; and gain of function (positive) symptoms of cramps, tremor, and muscle twitch (fasciculations). There is also pain in the muscles (myalgia), cramps, etc., and there may also be autonomic disfunction. During a neurological examination, those with generalized peripheral neuropathies most commonly have distal sensory or motor and sensory loss, though those with a pathology (problem) of the peripheral nerves may be perfectly normal; may show proximal weakness, as in some inflammatory neuropathies like Guillain–Barré syndrome; or may show focal sensory disturbance or weakness, such as in mononeuropathies. Ankle jerk reflex is classically absent in peripheral neuropathy.

Causes

The causes are broadly grouped as follows:

- Genetic diseases: Friedreich's ataxia, Charcot-Marie-Tooth syndrome .

- Metabolic/Endocrine: diabetes mellitus, chronic renal failure, porphyria, amyloidosis, liver failure, hypothyroidism
- Toxic causes: Drugs (vincristine, phenytoin, nitrofurantoin, isoniazid, ethyl alcohol), organic metals, heavy metals, excess intake of vitamin B6 (pyridoxine)
- Fluoroquinolone toxicity: Irreversible neuropathy is a serious adverse reaction of fluoroquinolone drugs Inflammatory diseases: Guillain-Barré syndrome, systemic lupus erythematosis, leprosy, Sjögren's syndrome, Lyme Disease, sarcoidosis,
- Vitamin deficiency states: Vitamin B12 (cyanocobalamin), vitamin A, vitamin E, vitamin B1 (thiamin)
- Physical trauma: compression, pinching, cutting, projectile injuries (i.e. gunshot wound), strokes including prolonged occlusion of blood flow, electric discharge, including lightning strikes
- Others: shingles, malignant disease, HIV, radiation, chemotherapy

Many of the diseases of the peripheral nervous system may present similarly to muscle problems (myopathies), and so it is important to develop approaches for assessing sensory and motor disturbances in patients so that a physician may make an accurate diagnosis.

Treatment

Many treatment strategies for peripheral neuropathy are symptomatic. Some current research in animal models has shown that neurotrophin-3 can oppose the demyelination present in some peripheral neuropathies. A range of drugs that act on the central nervous system such as drugs originally intended as antidepressants and antiepileptic drugs have been found to be useful in managing neuropathic pain. Commonly used treatments include using a tricyclic antidepressant (such as amitriptyline) and antiepileptic therapies such as gabapentin or sodium valproate. These have the advantage that besides being effective in many cases they are relatively low cost.

"A great deal of research was done between 2005 and 2010 which indicates that synthetic cannabinoids and inhaled cannabis are effective treatments for a range of neuropathic disorders. "

Research has demonstrated that the synthetic oral cannabinoid Nabilone is an effective adjunct treatment option for neuropathic conditions, especially for people who are resistant, intolerant, or allergic to common medications. Orally, opiate derivatives were found to be more effective than cannabis for most people. Smoked cannabis has been found to provide relief from HIV-associated sensory neuropathy. Smoked cannabis was also found to relieve neuropathy associated with CRPS type I, spinal cord injury, peripheral neuropathy, and nerve injury. Pregabalin is an anticonvulsant drug used for neuropathic pain. It is effective for generalized anxiety disorder. It was designed as a more potent successor to gabapentin but is significantly more expensive, especially now that the patent on gabapentin has expired and gabapentin is available as a generic drug. Pregabalin is marketed by Pfizer under the trade name Lyrica. Duloxetine, a serotonin-norepinephrine reuptake inhibitor, is also being used to reduce neuropathic pain. TENS (Transcutaneous Electrical Nerve Stimulation) therapy may be effective and safe in the treatment of diabetic peripheral neuropathy. A second review of four trials found significant improvement in pain and overall symptoms, with thirty eight percent of patients in one trial becoming asymptomatic. The treatment remains effective even after prolonged use, but symptoms return to baseline within a month of treatment cessation.

Neuropathy is a collection of disorders that occurs when nerves of the peripheral nervous system (the part of the nervous system outside of the brain and spinal cord) is damaged. The condition is generally referred to as peripheral neuropathy, and it is most commonly due to damage to nerve axons. Neuropathy usually causes pain and numbness in the hands and feet. It can result from traumatic injuries, infections, metabolic disorders, and exposure to toxins. One of the most common causes of neuropathy is diabetes.

Neuropathy can affect nerves that control muscle movement (motor nerves) and those that detect sensations such as coldness or pain (sensory nerves). In some

cases (autonomic neuropathy) it can affect internal organs, such as the heart, blood vessels, bladder, or intestines.

Pain from peripheral neuropathy is often described as a tingling or burning sensation. There is no specific length of time that the pain exists, but symptoms often improve with time - especially if the neuropathy has an underlying condition that can be cured. The condition is often associated with poor nutrition, a number of diseases, and pressure or trauma, but many cases have no known reason (called idiopathic neuropathy).

In the United States, about twenty million people suffer from neuropathy. Over half of diabetes patients also suffer from the condition.

How is neuropathy classified?

Peripheral neuropathy can be broadly classified into the following categories:

- Mononeuropathy - involvement of a single nerve. Examples include carpal tunnel syndrome, ulnar nerve palsy, radial nerve palsy, and peroneal nerve palsy.
- Multiple mononeuropathy - two or more nerves individually affected.
- Polyneuropathy - generalized involvement of peripheral nerves. Examples include diabetic neuropathy and Guillain-Barre syndrome.

Neurophathies may also be categorized based on a functional classification { [motor, sensory, autonomic, or mixed or the type of onset acute - hours or days, sub-acute - weeks or months, or chronic - months or years] }.

Autonomic neuropathy is a form of polyneuropathy which affects the non-voluntary, non-sensory nervous system (i.e., the autonomic nervous system) affecting mostly the internal organs such as the bladder muscles, the cardiovascular system, the digestive tract, and the genital organs. These nerves are not under a person's conscious control and function automatically. Autonomic nerve fibers form large collections in the thorax, abdomen and pelvis outside spinal cord, however they have connections with the spinal cord and ultimately the brain. Most commonly autonomic neuropathy is seen in

persons with long-standing diabetes mellitus type 1 and 2. In most but not all cases, autonomic neuropathy occurs alongside other forms of neuropathy, such as sensory neuropathy.

Autonomic neuropathy is one cause of malfunction of the autonomic nervous system, but not the only one; some conditions affecting the brain or spinal cord can also cause autonomic dysfunction, such as multiple system atrophy, and therefore cause similar symptoms to autonomic neuropathy.

The signs and symptoms of autonomic neuropathy include the following:

- urinary bladder conditions: bladder incontinence or urine retention
- gastrointestinal tract: dysphagia, abdominal pain, nausea, vomiting, malabsorption, fecal incontinence, gastroparesis, diarrhea, constipation
- cardiovascular system: disturbances of heart rate (tachycardia, bradycardia), orthostatic hypotension, inadequate increase of heart rate on exertion
- other: hypoglycemia unawareness, genital impotence, sweat disturbances

The most common form of neuropathy is (symmetrical) peripheral polyneuropathy, which mainly affects the feet and legs on both sides of the body.

What causes neuropathy?

About thirty percent of neuropathy cases are considered idiopathic, which means they are of unknown cause. Another thirty percent of neuropathies are due to diabetes. In fact, about fifty percent of people with diabetes develop some type of neuropathy. The remaining cases of neuropathy, called acquired neuropathies, have several possible causes, including:

- Trauma or pressure on nerves, often from a cast or crutch or repetitive motion such as typing on a keyboard
- Nutritional problems and vitamin deficiencies, often from a lack of B vitamins

- Alcoholism, often through poor dietary habits and vitamin deficiencies
- Autoimmune diseases, such as lupus, rheumatoid arthritis, and Guillain-Barre syndrome
- Tumors, which often press up against nerves
- Other diseases and infections, such as kidney disease, liver disease, Lyme disease, HIV/AIDS, or an underactive thyroid (hypothyroidism)
- Inherited disorders (hereditary neuropathies), such as Charcot-Marie-Tooth disease and amyloid polyneuropathy
- Poison exposure, from toxins such as heavy metals, and certain medications and cancer treatments

Risk factors for peripheral neuropathy include several conditions and behaviors. People with diabetes who poorly control their blood sugar levels are very likely to suffer from some neuropathy. Autoimmune diseases such as lupus and rheumatoid arthritis also increase one's chance of developing a neuropathy. People who have received organ transplants, AIDS patients, and others who have had some type of immune system suppression have a higher risk of neuropathy. In addition, those who abuse alcohol or have vitamin deficiencies (especially B vitamins) are at an increased risk. Neuropathy is also more likely to occur in people with kidney, liver or thyroid disorders.

What are the symptoms of neuropathy?

Neuropathy symptoms depend on several factors, chiefly where the affected nerves are located and which type of nerves are affected (motor, sensory, autonomic). Several types of neuropathy affect all three types of nerves. Some neuropathies suddenly arise while others come on gradually over the course of years.

Motor nerve damage usually leads to symptoms that affect muscles such as muscle weakness, cramps, and spasms. It is not uncommon for this type of neuropathy to lead to a loss of balance and coordination. Patients may find it difficult to walk or run, feel like they have heavy legs, stumble, or tire easily. Damage to arm nerves may make it difficult to do routine tasks like carry bags, open jars, or turn door knobs.

Sensory nerve damage can cause various symptoms, such as an impaired sense of position, tingling, numbness, pinching and pain. Pain from this neuropathy is often described as burning, freezing, or electric-like, and many report a sensation of wearing an invisible "glove" or "stocking". These sensations tend to be worse at night, and can become painful and severe. On the contrary, sensory nerve damage may lead to a lessening or absence of sensation, where nothing at all is felt.

Autonomic nerve damage affects internal organs and involuntary functions and can lead to abnormal blood pressure and heart rate, reduced ability to perspire, constipation, bladder dysfunction, diarrhea, incontinence, sexual dysfunction, and thinning of the skin.

How is neuropathy diagnosed?

Peripheral neuropathy is often not easy to diagnose. It is not a single disease, but a symptom with often several potential causes. The standard diagnostic process begins with a full medical history with physical and neurological exams that will examine tendon reflexes, muscle strength and tone, the ability to feel sensations, and posture and coordination. Blood tests are also common in order for doctors to measure levels of vitamin B-12. Other common tests include urinalysis, thyroid function tests, and a nerve conduction study that includes electromyography (to measure electrical discharges produced in muscles). Physicians may also recommend a nerve biopsy, where a small portion of nerve is removed and examined under a microscope.

How is neuropathy treated?

There are a variety of treatments available for peripheral neuropathy. They range from traditional pills and creams to special diets and therapies that stimulate the nervous system. Antidepressants, especially tricyclics and selective serotonin-norepinephrine re-uptake inhibitors (SNRI's), are a favored treatment for neuropathies. They will relieve neuropathic pain in non-depressed persons. Another class of medicines commonly prescribed for neuropathy is that of anticonvulsants. These medicines block calcium channels on neurons to limit pain. Opioid narcotic treatments for neuropathy are used as well to treat the condition, but are less favored because of the risk of

dependency. However, opioids have been the most consistently effective in reducing pain.

For some types of neuropathy, such as post-herpes neuralgia, physicians recommend treatment with a topical anesthetic such as lidocaine. Topical applications of capsaicin (the chemical that makes peppers hot) has also been used to treat neuropathic pain.

Alternative therapies for peripheral neuropathy include cannabinoids (a class of chemicals found in marijuana), Botulinum Toxin Type A (better known as Botox), NMDA antagonists (such as ketamine), dietary supplements (such as alpha lipoic and benfotiamine), chiropractic massages, yoga, meditation, cognitive therapy, and accupuncture.

A final class of therapies for neuropathy are called neuro-modulators. These include both implantable and non-implantable technologies (electrical and chemical) such as spinal cord stimulators, implanted spinal pumps, electrodes that stimulate the motor cortex of the brain, and methods called deep brain stimulation.

How can neuropathy be managed and prevented?

There are several ways to manage neuropathy and prevent its symptoms. Good foot health is important, especially for diabetics. Patients should check feet for blisters, cuts, or calluses and avoid tight fitting shoes and socks. Doctors can recommend an exercise plan that will reduce neuropathy pain and control blood sugar levels. Patients should also quit smoking and eat healthful meals. Massages of hands and feet may also aid neuropathy management by stimulating nerves and temporarily relieving pain. Finally, avoid prolonged pressure on knees or elbows in order to prevent new nerve damage.

Peripheral Neuropathy is one of the most common chronic diseases in the U.S…over 20 million Americans have it. Peripheral neuropathy or “nerve damage” disrupts the body’s ability to communicate with its muscles, skin, joints, or internal organs. Peripheral neuropathy can be compared to the body’s electrical wiring system breaking down, causing numbness, pain, weakness and poor coordination

Mononeuropathy may involve any part of the body. Some of the common forms of mononeuropathy include:

- Common peroneal nerve dysfunction
- Carpal tunnel syndrome
- Cranial mononeuropathy III; compression type
- Cranial mononeuropathy III; diabetic type
- Cranial mononeuropathy VI
- Cranial mononeuropathy VII
- Femoral nerve dysfunction
- Radial nerve dysfunction
- Sciatic nerve dysfunction
- Ulnar nerve dysfunction

Symptoms

Symptoms depend on the specific nerve affected, and may include:

- Loss of sensation
- Paralysis
- Tingling, burning, pain, abnormal sensations
- Weakness

Signs and tests

A detailed medical history is needed to determine the possible cause of the disorder. An examination and nerve and muscle testing may show a loss of feeling, movement, or other problems with a specific nerve. Reflexes may be abnormal. Tests may include:

1. Electromyogram (EMG) - a recording of electrical activity in muscles

2. Nerve conduction tests (NCV) - recording the speed of electrical activity in the nerves
3. Nerve biopsy
4. Other tests may include:
5. Antinuclear antibody panel (ANA)
6. Blood chemistry tests
7. C-reactive protein
8. Imaging scans, such as MRI or CT scan
9. Rheumatoid factor
10. Sedimentation rate
11. Thyroid tests
12. X-rays

Treatment

The goal of treatment is to allow you to use the affected body part as much as possible. The cause of the mononeuropathy should be identified and treated as appropriate. Sometimes, no treatment is needed and you will get better on your own. High blood pressure and diabetes can injure an artery, which can often affect a single nerve. The underlying condition should be treated. Corticosteroids injected into the area may reduce swelling and pressure on the nerve if it is being pinched or trapped against another part of the body, such as a bone. Surgery may be recommended if symptoms are caused by entrapment of the nerve. Surgery to relieve the pressure on the nerve may help in some cases.

Medications:

Over-the-counter or prescription pain medicine may be needed to control pain (neuralgia).

Prescription medications such as gabapentin, pregabalin, phenytoin, carbamazepine, or antidepressants such as amitriptyline, nortriptyline, or duloxetine may be used to reduce stabbing pains. Whenever possible, avoid or minimize the use of these drugs to reduce the risk of medication side effects.

Other Treatments:

Physical therapy exercises to maintain muscle strength
Orthopedic braces, splints, or other appliances
Vocational counseling, occupational therapy, occupational changes, job retraining

Expectations (prognosis)

Mononeuropathy may be disabling and painful. If the cause of the nerve disfunction can be found and successfully treated, a full recovery is possible and even likely in some cases. The amount of disability varies from no disability to partial or complete loss of movement or sensation. Nerve pain may be uncomfortable and may last for a long time.

Complications

- Deformity, loss of tissue mass
- Medication side effects
- Repeated or unnoticed injury to the affected area due to lack of sensation

Prevention

Avoiding pressure or traumatic injury may prevent many forms of mononeuropathy. Treating conditions such as high blood pressure or diabetes also decreases your risk of developing the condition.

Cannabinoids Treat Neuropathy

Neuropathic pain remains a significant clinical problem because it responds poorly to available therapies.

Neuropathic pain is often refractory to conventional pharmacotherapies, necessitating validation of novel analgesics.

Effects of genetic disruption of cannabinoid receptors or enzymes controlling endocannabinoid degradation on neuropathic nociception are described. Specific forms of allodynia and hyperalgesia modulated by cannabinoids are also considered. In humans, effects of smoked marijuana, synthetic 9-THC analogs (e.g., Marinol, Cesamet) and medicinal cannabis preparations containing both 9-THC and

cannabidiol (e.g., Sativex, Cannador) in neuropathic pain states are reviewed. Clinical studies largely affirm that neuropathic pain patients derive benefits from cannabinoid treatment. Subjective (i.e., rating scales) and objective (i.e., stimulus evoked) measures of pain and quality of life are considered.

Cannabinoids for the Treatment of Neuropathic Pain

Tannia Gutierrez; Andrea G Hohmann

The isolation of Δ9-tetrahydrocannabinol (THC), the major psychoactive ingredient in cannabis, set the stage for the discovery of an endogenous cannabinoid (endocannabinoid) transmitter system. Endogenous signaling molecules for this system were subsequently isolated. Anandamide and 2-arachidonoylglycerol (2-AG), the best characterized endocannabinoids isolated to date, bind to and activate cannabinoid CB1 and CB2 receptors. CB1 is the primary cannabinoid receptor found in the CNS, whereas CB2 is predominantly, but not exclusively, found in the immune system. The discovery of cannabinoid receptors allowed researchers to synthesize cannabinoids and characterize their pain-relieving properties. Anandamide and 2-AG are degraded by the enzymes fatty-acid amide hydrolase and monoacylglycerol lipase, respectively. Enzymes catalyzing endocannabinoid breakdown also represent targets for analgesic drug development. This article will briefly summarize the findings of preclinical and clinical studies evaluating the therapeutic and side-effect profile of cannabinoids as pharmacotherapies for neuropathic pain.

GW Pharmaceuticals announced preliminary results of two Phase III studies of Sativex®, its cannabinoid spray medicine, in peripheral neuropathic pain.

The results of the study in patients with neuropathic pain characterized by allodynia show that patients taking Sativex obtain clinically important improvements in their management of pain and quality of sleep. In comparison with placebo, statistically significant improvements were seen for key outcome measures, including a positive result in the primary analysis of patient response, the outcome measure recommended by regulatory authorities.

The results of the study in patients with painful diabetic neuropathy show that patients taking Sativex obtained substantial improvements in their pain, indeed among the highest level of response seen in the published literature. There was an abnormally large placebo response in this study, which means that the data are more difficult to interpret categorically.

Dr Stephen Wright, GW's R&D Director, said, "Neuropathic pain is one of the most difficult types of chronic pain to treat. These studies focused on particularly high need patients, who were already taking the best available pain treatments, and yet still suffered severe pain. Even in this most difficult to treat population, Sativex has produced improvements over and above current treatments that are highly meaningful to the everyday lives of patients."

This multi-centre double-blind, randomized, placebo-controlled parallel group study in 297 patients examined the effect of Sativex in patients with painful diabetic neuropathy. Patients in this study were being treated with a range of currently available analgesics, which were maintained during the course of the study.

In this study, patients taking Sativex showed a thirty percent mean improvement in pain scores, among the highest level of response seen in the published literature. One third of Sativex patients achieved over a fifty percent improvement in pain.

Sativex is approved and marketed in Canada for the symptomatic relief of central neuropathic pain in MS, and is the subject of an ongoing regulatory submission in Canada for the relief of cancer.

Neuropathic pain often does not respond well to pharmacotherapy and medications used in its treatment often have adverse effect profiles that make it difficult to achieve maximal therapeutic dosing, resulting in limited symptomatic relief.

At the end of follow-up, the average reduction in pain intensity scores was greater in the THC:CBD group than in the placebo group (95%). The authors concluded that THC:CBD had a positive effect on neuropathic pain, when used as an add-on therapy to existing analgesics.

Cannabinoid-mediated Modulation of Neuropathic Pain and Microglial Accumulation in a Model of Murine Type I Diabetic Peripheral Neuropathic Pain.” Molecular Pain.

The new information: This experiment involved inducing diabetes in mice in the presence and absence of cannabinoid agonists and observing the mice over a course of 8 months. There were six main experimental groups, one of which diabetes was induced without cannabinoid treatment, serving as a control. In a second group, diabetes was induced in conjunction with cannabidiol treatment. It was found that in this second group, neuropathic pain did not develop over the course of 8 months and the levels of activated microglia in the spinal cord were greatly reduced compared to the control. Additionally, when cannabidiol treatment was stopped, the mice continued to show reduced microglia as well as no signs of neuropathic pain. A third and fourth group involved the induction of diabetes and treatment with both CB1 and CB2 cannabinoid receptor agonists once symptoms of neuropathic pain started. The results indicated that both CB1 and CB2 agonists inhibited the symptoms of neuropathic pain, but the pain returned after treatment was stopped. The last two groups involved treatment with CB1 and CB2 cannabinoid receptor antagonists, which block the effect of cannabinoids, and no change was seen in the levels of pain compared to the control group.

What this means: This experiment provided more evidence that cannabinoids may be used in the treatment of neuropathic pain. However, the novel information obtained is much more surprising. When treated with cannabidiol at the onset of diabetes, the diabetic mice did not have any symptoms of neuropathic pain even when treatment was stopped. This suggests that treatment with cannabidiol at the onset of diabetes may produce permanent protective changes for nerve cells. Therefore, cannabis could hypothetically be used short-term at the onset of type II diabetes in adults for lifetime or long-term prevention of diabetic peripheral neuropathy.

Cannabis/Cannabinoids/Neuropathic pain (Part 1)

Where ever you look on the internet, the general conclusion regarding effective treatments for neuropathic pain seems to suggest that only three things really work: capsaicin, smoked cannabis and rhNGF (nerve growth factor). The latter has not been approved by the major national organisations and we have discussed capsaicin at length in other posts on the blog. This is the first of two more posts with reasonable explanations supporting Cannabinoids. Legal problems aside, there seems to be a growing cache of evidence supporting the efficacy of cannabis, not only as an analgesic but as something with positive effects on the nervous and other body systems.

Opiates do not have clear indications for neuritis and neuropathy although they are widely prescribed for the pain but marijuana actually has been shown to relieve peripheral neuropathy due to HIV and diabetic neuropathy. THC has been useful for treating phantom pain with amputees, causalgias (another peripheral neuropathy condition), neuralgias, and conditions like trigeminal neuralgia. Medical marijuana has also found success with chronic cancer pain. A study at the University of Iowa found oral THC at 5 to 10 mg was as effective as 60mg of Codeine for terminal cancer pain relief.

One question that is obvious – Does marijuana alleviate pain simply because patients no longer care about it? Do the psychoactive effects of marijuana simply influence a patient’s attitude towards the pain and allow him or her to mask it out?

Cannabis/Cannabinoids/Neuropathic pain

5/5/2011 – Recent scientific articles reviewed the ability of cannabis and cannabinoids to treat pain, especially neuropathic pain. This may be new hope for doctors who are struggling to treat these conditions. Clinical trials on humans using cannabis in various forms (smoked, extracts, oral THC, synthetic analogues) were reviewed by different research teams. Three recent reviews of those human trials demonstrate that cannabis and cannabinoids are effective for treating certain types of chronic pain with acceptable side effects.

A review on the treatments for HIV neuropathic pain concluded that, “evidence of efficacy exists only for capsaicin, smoked cannabis and rhNGF (nerve growth factor). However, rhNGF is clinically unavailable and smoked cannabis cannot be recommended as routine therapy (Phillips et al).”

Meaning, the only medications that have been shown to effectively alleviate HIV/AIDS neuropathic pain are not available on the market. Notably “smoked cannabis” was shown to be effective for the treatment of HIV neuropathy, a condition that affects more than 40% of the estimated 33 million people currently living with HIV.

A University of Pennsylvania research team published a similar review concluding that, “there is strong evidence for a moderate analgesic effect in peripheral neuropathic and central pain conditions, and conflicting evidence for their use in nociceptive pain. For spasticity, most controlled studies demonstrate significant improvement. Adverse effects are not uncommon with cannabinoids, though most are not serious and self-limiting.”

Last but not least, researchers from Canada concluded, that “overall the quality of trials was excellent. Fifteen of the eighteen trials that met inclusion criteria demonstrated a significant analgesic effect of cannabinoid as compared to placebo, several reported significant improvements in sleep. There were no serious adverse effects. Adverse effects most commonly reported were generally well tolerated, mild to moderate in severity and led to withdrawal from the studies in only a few cases (Lynch et al).”

This team from was from Dalhousie University Department of Anesthesia and Pain Medicine, Hospital for Sick Children, University of Toronto. The researchers go on to say, “this systematic review of 18 recent good quality randomized trials demonstrates that cannabinoids are a modestly effective and safe treatment option for chronic non-cancer (predominantly neuropathic) pain.”

Traumatic pain is scratching your arm, banging your thumb with a hammer or post-operative pain (surgery). But neuropathic pain is something completely different because it is generated by diseases (Multiple Sclerosis, HIV/AIDS, amputation) or as a side effect from medication toxicity. Essentially the brain begins sending pain signals out to the body for no reason. Patients say they experience it as a burning or shooting pain sensation in their hands and feet at first. Neuropathic pain often progresses to become much more intense. Opiates do not seem to have any impact in certain groups.

Jahan Marcu is currently investigating the pharmacology of cannabinoid receptors. He was working at the California Pacific Medical Center Research Institute when exciting discoveries were made showing enhanced anti-cancer effects with THC and CBD from the Cannabis plant. The findings were published in the Journal of Molecular Cancer Therapeutics. In 2009 he received the Billy Martin Award from the International Cannabinoid Research Society (ICRS). Jahan is currently the vice-chair the Medical and Scientific Advisory Board at Americans for Safe Access (ASA).