



Facts about Medical Marijuana and Cancer

"When our grown daughter was undergoing chemotherapy for lymph cancer, she was sick and vomiting constantly as a result of her treatments. No legal drugs, including Marinol, helped her. We finally turned to marijuana. With it, she kept her food down, was comfortable and even gained weight. If doctors can prescribe morphine and other addictive medicines, it makes no sense to deny marijuana to sick and dying patients when it can be provided on a carefully controlled, prescription basis."

—Lyn Nofziger, Senior adviser to former-President Ronald Reagan

"Doctors see all sorts of social injustices that are written on the human body, one person at a time. But this one - the rote denial of a palliative care drug like marijuana to people with serious illness - smacks of pure cruelty precisely because it is so easily remediable, precisely because it prioritizes service to a cold political agenda over the distressed lives and deaths of real human beings. Why should an old woman be made to die a horrible death for a hollow political symbol?"

—Kate Scannell, M.D. Dr. Scannell is co-director of the Northern California Ethics Department of Kaiser-Permanente.

CANNABIS AND CANCER

Cannabis has been found to help cancer patients with pain and nausea, and recent research indicates it has tumor-reducing properties as well. It has proven highly effective at controlling the nausea associated with chemotherapy, and its appetite-stimulation properties help combat wasting. Cannabis can help control the pain associated with radiation and chemotherapy, as well as the disease itself. Also, cannabinoids have been shown to have tumor-reducing properties for many types of cancer.

CHEMOTHERAPY SIDE EFFECTS

Using cannabis and drugs made from the cannabinoids it contains to treat the side effects of cancer chemotherapy has been more widely studied than many other potential therapeutic applications. Numerous clinical studies have reported that the use of cannabis reduces nausea and vomiting and stimulates appetite, thereby reducing the severity of cachexia, or wasting syndrome, in patients receiving chemotherapy treatment. Authors of the Institute of Medicine report, "Marijuana and Medicine: Assessing the Science Base," (1999) acknowledged that there are certain cancer patients for whom cannabis should be a valid medical option. A random-sample anonymous survey was conducted in the spring of 1990 measuring the attitudes and experiences of oncologists concerning the antiemetic use of cannabis in cancer chemotherapy patients. Of the respondents expressing an opinion, a majority (54%) thought cannabis should be available by prescription.

The 1999 Institutes of Medicine report concluded: "In patients already experiencing severe nausea or vomiting, pills are generally ineffective, because of the difficulty in swallowing or keeping a pill down, and slow onset of the drug effect. Thus an inhalation (but, preferably not smoking) cannabinoid drug delivery system would be advantageous for treating chemotherapy-induced nausea."

CANCER FIGHTING PROPERTIES

More than eighteen major studies published between 2001 and 2003 showed that the chemicals in cannabis known as cannabinoids have a significant effect fighting cancer cells. We now know cannabinoids arrest many kinds of cancer growths (brain, breast, leukemic, melanoma, pheochromocytoma, *et al.*) through promotion of apoptosis (programmed cell death) that is lost in tumors, and by arresting angiogenesis (increased blood vessel production).

Recent scientific advances in the study of cannabinoid receptors and endocannabinoids have produced exciting new leads in the search for anti-cancer treatments. There is growing evidence of direct anti-tumor activity of cannabinoids, specifically CB1 and CB2 agonists, in a range of cancer types including brain (gliomas), skin, pituitary, prostate and bowel. The antitumor activity has led in laboratory animals and in-vitro human tissues to regression of tumors, reductions in vascularisation (blood supply) and metastases (secondary tumors), as well as direct inducement of death (apoptosis) among cancer cells. Indeed, the complex interactions of endogenous cannabinoids and receptors are leading to greater scientific understanding of the mechanisms by which cancers develop.

SIDE EFFECTS

"The smoking of cannabis, even long term, is not harmful to health. . . ." -1995 editorial statement of Great Britain's leading medical journal, The Lancet.

The side effects associated with cannabis are typically mild and are classified as "low risk." Euphoric mood changes are among the most frequent side effects.

Cannabinoids can exacerbate schizophrenic psychosis in predisposed persons. Cannabinoids impede cognitive and psychomotor performance, resulting in temporary impairment. Chronic use can lead to the development of tolerance. Tachycardia and hypotension frequently are documented as adverse events in the cardiovascular system. A few cases of myocardial ischemia have been reported in young and previously healthy patients. Inhaling the smoke of cannabis cigarettes induces side effects on the respiratory system. Cannabinoids are contraindicated for patients with a history of cardiac ischemias. In summary, a low risk profile is evident from the literature available. Serious complications are very rare and were not reported after use of cannabinoids for medical indications.

The chief legitimate concern is the effect of smoking on the lungs. Cannabis smoke carries even more tars and other particulate matter than tobacco smoke. But the amount smoked is much less, especially in medical use "Vaporizers," are widely available through stores and mail-order. These devices heat the cannabis so the smoke is vaporized and not harmful to the lungs.

The greatest danger in medical use of marijuana is its illegality, which imposes much anxiety and expense on suffering people, forces them to bargain with illicit drug dealers, and exposes them to the threat of criminal prosecution. -Dr. Lester Grinspoon, Harvard University Medical School (retired)