Format: Abstract

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Cannabinoids for Symptom Management and Cancer Therapy: The Evidence.

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Abstract

Cannabinoids bind not only to classical receptors (CB1 and CB2) but also to certain orphan receptors (GPR55 and GPR119), ion channels (transient receptor potential vanilloid), and peroxisome proliferator-activated receptors. Cannabinoids are known to modulate a multitude of monoamine receptors. Structurally, there are 3 groups of cannabinoids. Multiple studies, most of which are of moderate to low quality, demonstrate that tetrahydrocannabinol (THC) and oromucosal cannabinoid combinations of THC and cannabidiol (CBD) modestly reduce cancer pain. Dronabinol and nabilone are better antiemetics for chemotherapy-induced nausea and vomiting (CINV) than certain neuroleptics, but are not better than serotonin receptor antagonists in reducing delayed emesis, and cannabinoids have largely been superseded by neurokinin-1 receptor antagonists and olanzapine; both cannabinoids have been recommended for breakthrough nausea and vomiting among other antiemetics. Dronabinol is ineffective in ameliorating cancer anorexia but does improve associated cancer-related dysgeusia. Multiple cancers express cannabinoid receptors directly related to the degree of anaplasia and grade of tumor. Preclinical in vitro and in vivo studies suggest that cannabinoids may have anticancer activity. Paradoxically, cannabinoid receptor antagonists also have antitumor activity. There are few randomized smoked or vaporized cannabis trials in cancer on which to judge the benefits of these forms of cannabinoids on symptoms and the clinical course of cancer. Smoked cannabis has been found to contain Aspergillosis. Immunosuppressed patients should be advised of the risks of using "medical marijuana" in this regard.

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