



PIC QUESTION OF THE WEEK: 11/27/06

Q: Is there any basis for using nabilone in the treatment of chronic pain?

A: Nabilone (Cesamet®) is a synthetic cannabinoid labeled for the treatment of nausea and vomiting associated with cancer chemotherapy after failure of conventional anti-emetic agents. The drug was initially available in 1985, but discontinued in 1989 due to poor sales and other marketing issues. It was re-licensed and subsequently approved by the FDA in 2006. Dronabinol (Marinol®) is the only other cannabinoid currently available in this country. It too is indicated for chemotherapy-induced nausea as well as appetite stimulation in patients with AIDS. Dronabinol is designated as a Schedule III controlled substance while nabilone is classified as Schedule II. There appears to be little illicit use of either drug. Cannabinoids are psychoactive constituents of *Cannabis sativa* and agonists of cannabinoid 1 (CB1) receptors in the central and peripheral nervous systems. Stimulation of CB1 receptors results in decreased activity of adenylyl cyclase and reduced levels of cyclic adenosine monophosphate (cAMP). This action on CB1 receptors produces multiple clinical effects including alteration of memory and motor function, sedation, muscle relaxation, and analgesia. CB1 receptors affect pain transmission at spinal, supraspinal, and peripheral levels. Dronabinol and nabilone have been used in managing pain and spasticity in patients with multiple sclerosis, post-operative pain, and in a variety of other conditions in which pain was a prominent symptom. A cannabinoid analogue is available in Canada for management of pain in patients with multiple sclerosis. A recent retrospective study of 20 patients with chronic non-cancer pain indicated some degree of pain relief in nearly 50% of those evaluated. These patients also reported some improvement in appetite and the quality of sleep. Initial dosage of nabilone was 1 mg at bedtime and subsequently titrated to 1 mg twice daily. Occasional patients received daily doses as high as 4 mg. Adverse reactions included headache (especially with higher dosage), dry mouth, palpitations, urinary retention, and various central nervous system effects. Three patients discontinued the drug during the first week due to adverse effects. There is preliminary evidence that nabilone may be of benefit for some patients suffering various forms of chronic pain not responsive to standard treatments.



References:

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