

9th Annual Congress on

DRUG DESIGN & DRUG FORMULATION

October 19-20, 2017 Seoul, South Korea



James D Adams

USC School of Pharmacy, USA

5-Oral pain killers are killing people: There is a better way

Statement of the Problem: The use of oral NSAIDs and opioids kills patients by causing strokes (80,000 resulting in 14,000 deaths), heart attacks (75,000 resulting in 12,000 deaths), ulcers (100,000 resulting in 10,000 deaths), respiratory depression (>18,000 deaths), kidney toxicity and seizures. It is estimated that 54,000 or more people in the US die every year from these dangerous drugs. The US has a fixation with using these dangerous oral drugs. Many clinicians are unable to imagine any other way to treat pain.

Methodology & Theoretical Orientation: Liniments are available that treat even broken bone pain and other severe pain. Liniments are available that cure chronic pain such as fibromyalgia, whiplash and chronic back pain. Acupuncture successfully treats pain in many patients. Heat or ice therapy is effective for many pain patients.

Findings: Liniments that contain monoterpenoids provide very effective pain relief, even for severe pain. The use of single monoterpenoids is not effective. Multiple monoterpenoids should be present to inhibit multiple types of transient receptor potential cation channels in the skin. These receptors are the major pain receptors and are highly concentrated on skin sensory afferent neurons. Sesquiterpenes should also be present in the liniment to inhibit COX-2 activity and expression. COX-2 is up-regulated in the skin in chronic pain conditions. COX-2 makes prostaglandins that cause and magnify pain. Monoterpenoids and sesquiterpenes cross the skin and are effective when applied topically.

Conclusion & Significance: Pain is most effectively and safely treated in the skin. The use of acupuncture is very effective and safe. The application of small amounts of liniment at painful sites on the skin is effective and avoids systemic toxicity. Liniments that down regulate COX-2 can cure chronic pain.

Recent Publications

1. Adams J and Wang X (2015) Control of pain with topical plant medicines. *Asian Pacific J Trop Biomed*; 5(4): 93-5.
2. Garg G and Adams J D (2012) Treatment of neuropathic pain with plant medicines. *Chin J Integr Med*; 18(8): 565-70.

Biography

James Adams was trained for 14 years by a California Indian Healer, Chumash. He has used these medicines to treat many patients over the years. He has also investigated the phytochemistry of California medicinal plants and has published several articles on the subject. He teaches Chumash Healing to pharmacy and medical students and to the public.

jadams@usc.edu