# Dynamic Chiropractic



HERBS/ TEAS & HOMEOPATHY

## Helping Patients Sleep Better: California Poppy

A NATURAL ALTERNATIVE TO NARCOTICS, NSAIDS FOR NIGHT PAIN AND ASSOCIATED INSOMNIA.

James P. Meschino, DC, MS

In recent years, researchers have discovered a proven, natural alternative to narcotic and other analgesic drugs for relief of night pain and night pain-associated insomnia. Individuals with acute or chronic pain know that pain is intensified during the night. In turn, this produces sleep deprivation, which further slows the healing process, produces ongoing fatigue and can lead to despondency, personality changes, and even depression. In recent years governments around the world have recognized the safe and effective pain-killing effects of the isoquinoline alkaloids from <code>Eschscholzia californica</code>. This herb has beenshown to reduce night pain and induce sleep in patients with night pain without producing euphoria, addiction potential, physical dependency or serious side effects of any kind.

#### Pain and the Aging Population

Chronic pain, which is reported to affect approximately 110 million Americans, is defined as three consecutive months of a painful condition. Chronic pain surveys in Canada suggest that 11 percent of individuals who are under 60 years of age, and 25-40 percent of those over 60 years, suffer from chronic pain. Across most Western developed countries approximately 14-17 percent of adults report having chronic pain.

The most common conditions associated with chronic pain include arthritis / rheumatism; fibromyalgia; migraine headache; and low back pain. Evidence suggests that a multidisciplinary approach yields the best results in chronic pain management, whereas the method yielding the worst results for the patient, the health care system and society entails reliance on prescription narcotic drugs.<sup>2</sup>



Over the years medical doctors have prescribed and recommended many analgesic drugs such as acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), and in more severe cases, narcotic drugs, as primary and sometimes exclusive methods of treatment in the management of chronic and acute muscle, joint and arthritic conditions. In recent years, documented evidence has shown that the frequent use of these medications for pain control has led to many serious unforeseen complications.

#### Health Complications from Standard Analgesic Drugs

Frequent use of acetaminophen has been shown to be a leading cause of liver failure, and acetaminophen ingestion is the leading cause of drug-induced liver failure, accounting for 50 percent of all acute liver failure cases in the U.S., half of which are unintentional (not suicide driven).<sup>3</sup> Chronic intake of the recommended dosage of acetaminophen (up to 4 grams per day, with no single dose to exceed 1 gm) is responsible for most cases of acetaminophen-induced liver failure.<sup>4</sup>

Chronic use of acetaminophen has also been shown to damage the kidneys (e.g., tubular necrosis), and can lead to analgesic nephropathy with need for dialysis. On a biochemical level, acetaminophen damages the liver and kidney via free-radical assault, induced by its phase I detoxification to NAPQI (*N*-acetyl-*p*-benzoquinone-imine) with concomitant depletion of cellular glutathione (which normally quenches NAPQI, stabilizing it and facilitating its safe removal from the body).<sup>5</sup>

Heavy reliance on NSAIDs for chronic pain control has also yielded devastating health consequences. Recent studies confirm that in addition to gastrointestinal erosion, ulceration and bleeding, chronic NSAID use also increases the risk of kidney damage, liver damage, congestive heart failure, high blood pressure and sudden cardiovascular death. Aspirin has long been

associated with gastrointestinal damage and associated internal bleeding, but other NSAIDs are largely responsible for increased risk of cardiovascular death. This appears to be related to the promotion of thrombosis, associated with many NSAIDs from ibuprofen to diclofenac (Voltaren ) to COX-2 inhibitors (e.g., Celebrex, Vioxx)

As such, doctors have been instructed not to recommend any NSAIDs, other than aspirin, for patients at high risk for heart disease. These recommendations also extend to precluding the recommendation of all NSAIDs for patients with any compromised kidney function. Low-dose aspirin, although recommended as a blood thinner for those who have suffered a previous heart attack, is no longer recommended to prevent first heart attack (primary prevention) due to the increasing reports of intestinal bleeds and bleeding into the brain, seen in patients prescribed low-dose aspirin (75-81 mg) for this purpose.

Narcotic Drugs - Rising Concerns About Addiction and Wasted Lives

Since the early 1990s governments have allowed doctors to prescribe narcotic drugs (e.g., oxycodone) for patients presenting with a wide variety of musculoskeletal pain conditions. Prior to this, narcotic drugs were only prescribed for patients with intractable pain, primarily due to terminal cancers (e.g., morphine drip). As such, physicians commonly use narcotics to reduce a patient's post-operative pain or to reduce anxiety and induce anesthesia prior to an operation. These drugs are also commonly prescribed in an attempt to enable individuals with chronic pain to lead productive lives.<sup>8</sup>

The problem is that many people who are prescribed and taking opioids for a period of time develop a physical dependence on the drug which can lead to abuse of the painkiller. Studies now show that 2.5 million Americans, of the 4.7 million who begin to abuse prescription drugs in any given year, use pain pills. Thus, more than 50 percent of all drug abuse cases involve analgesic drugs, and very often narcotics.<sup>9</sup>

Recognizing the potential for opioid abuse, addiction, diversion and related mortality, many jurisdictions have developed guidelines or implemented programs to promote more judicious use of these drugs. Across the board, medical doctors are being instructed to cut back on their prescription writing for narcotic drugs, and systems are being put in place to track and integrate pharmacy dispensing of these drugs using electronic recording and monitoring systems.<sup>10</sup>

#### A Safe Herbal Alternative

Recent studies have shown that the medicinal ingredients in the herb *Eschscholzia californica* block nighttime pain, allowing the patient to sleep through the night without being awakened by musculoskeletal pain. The herb also helps to induce sleep, enabling patients who are in pain to fall asleep and experience a restful sleep through the night. This, in turn, allows more rapid healing and improved response to other treatments.

As such, the administration of the right dosage and standardized grade of this herb, one hour before bedtime, addresses this important part of patient management, and should be strongly considered during the intensive treatment phase of these conditions, and in the long-term of management of chronic pain.<sup>11</sup>

The active ingredients in *Eschscholzia californica* are isoquinoline alkaloids (e.g. californidine, escholtzine and protopine). These isoquinoline alkaloids bind to opioid and serotonin receptors,

relieving pain without producing euphoria or having addiction potential. Stimulation of opioid receptors blocks pain sensation in the brain and blocks pain conduction in the spinal cord from reaching higher brain centers. Activation of serotonin receptors is also known to block the sensation of pain and induce sleep.<sup>12</sup>

Unlike narcotic drugs (e.g., Percocet, Oxydone) and benzodiazepine drugs (e.g., Valium, Ativan) often used to help patients in pain sleep through the night, supplements containing *Eschscholzia californica* do not cause addiction or destroy a person's motivation to return to a productive life. The active constituents in this herb do not cause euphoria or feeling of being "stoned," which allows individuals to function normally and better comply with treatment recommendations, including exercise. <sup>13</sup>

### **Precautionary Notes**

Patients should not take this herb if they are taking an evening or nighttime dose of a narcotic drug (e.g., Percodan, Oxycontin), anti-anxiety drug and/or a sleep-inducing drug (e.g., Valium, Sonata, Ambien). Patients taking narcotic or benzodiazepine drugs who wish to wean themselves off of these drugs by using *Eschscholzia californica* as a replacement for chronic pain management, must do so under the supervision and monitoring of their attending physician. Narcotic and benzodiazepine drugs are highly addictive; thus, each case requires individualized evaluation and attention.<sup>14</sup>

Additionally, when choosing a supplement containing *Eschscholzia californica*, it is important to use a government-approved product that contains the therapeutic dosage and standardized grade of isoquinoline alkaloids shown to be effective in clinical studies, and meets quality assurance and safety regulations.

#### References

- 1. American Academy of Pain Management: Facts and Figures on Pain. www.painmed.org/patient/facts.html
- 2. Meana M, et al. Chronic pain: The extra burden on Canadian women. *BMC Women's Health*, 2004;4(Suppl 1):S17
- 3. Ostapowicz G, Fontana RJ, Schiodt FV, et al. Results of a prospective study of acute liver failure at 17 tertiary care centers in the United States. *Ann Intern Med*, 2002 Dec 17;137(12):947-54.
- 4. MacDonald TM. Acetaminophen: risk-management urgently required. *Pharmacoepidemiol Drug Saf*, 2006 Jun;15(6):406-9.
- 5. Analgesic Nephropathy: Painkillers and the Kidneys. National Institutes of Health's National Institute of Diabetes and Digestive and Kidney Diseases.
- 6. Adams J, et al. Cause for concern in the use of non-steroidal anti-inflammatory medications in the community -a population-based study. *BMC Family Practice*, 2011;12:70
- 7. New Canadian Guidelines to Help Treat and Prevent Heart Disease. Canadian Cardiovascular Society, June 2011.
- 8. Prescription Painkiller Overdoses: Use and Abuse of Methadone as a Painkiller. Centers for Disease Control & Prevention, July 2012.
- 9. Prescription Drug Abuse: Narcotic Painkillers. Physiopedia.com.
- 10. "Ontario Moving to Reduce Abuse of Prescription Narcotics." Ontario Ministry of Long-Term Care, Aug. 27, 2010.
- 11. Rolland A, Fleurentin J, Lanhers MC, et al. Neurophysiological effects of an extract of Eschscholzia californica Cham. (Papaveraceae). *Phytother Res*, 2001;15:377-81.
- 12. Paul LD, Maurer HH. Studies on the metabolism and toxicological detection of the

- Eschscholtzia californica alkaloids californine and protopine in urine using gas chromatography-mass spectrometry. *J Chromatogr B Analyt Technol Biomed Life Sci*, 2003;789:43-57.
- 13. Hanus M, Lafon J, Mathieu M. Double-blind, randomised, placebo-controlled study to evaluate the efficacy and safety of a fixed combination containing two plant extracts (Crataegus oxyacantha and Eschscholtzia californica) and magnesium in mild-to-moderate anxiety disorders. *Curr Med Res Opin*, 2004;20:63-71.
- 14. Bone K, Mills x. *The Essential Guide to Herbal Safety*. Elsevier Churchill, Livingstone, 2005:313-315.

MARCH 2013

©2024 Dynanamic Chiropractic™ All Rights Reserved