

Acupuncture and Chinese Medicine for the Management of Acute and Chronic Pain

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Acupuncture: A Brief History

- Acupuncture has been used to improve health and treat disease for over 2,500 years, as one component of the broad-based traditional Chinese health care system.
- In the United States acupuncture has been a clinically effective intervention to help people with the side effects of medication as well as collectively treat the mind, body and spirit.
- It has become an increasingly popular form of complementary and alternative medicine (CAM) therapy in the United States; it is estimated that more than one million persons in the United States each year receive acupuncture, resulting in approximately 10 million treatment visits.
- “Auricular acupuncture in the treatment of Acute pain syndromes”

Current Research

- Clinical studies have demonstrated the effectiveness of acupuncture in the treatment of chronic and acute pain, nausea, headache, heart disease, and asthma.
- In 1997, a NIH consensus statement found promising results for the efficacy of acupuncture in treating adult postoperative and chemotherapy nausea and vomiting, as well as acute post operative dental pain.
- NIH has since stated that acupuncture may be useful in stroke rehabilitation, treating addiction, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, and carpal tunnel syndrome.
- Since 1997, further studies have demonstrated the effectiveness of acupuncture in treating pain syndromes, including low back pain, facial, head, and neck pain, and post-surgical pain.

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Mechanism of Action

- The exact mechanism of action remains unknown
- Studies have addressed potential biological explanations that acupuncture stimulates the release of endogenous opioids in the body, and that acupuncture's analgesic effects are blocked in a dose response manner by naloxone, an opiate antagonist.
- Rapid areas of study include magnetic resonance imaging technology, which demonstrates that stimulation of acupuncture points alters signals in both cortical and subcortical structures and the limbic system.
- It has been demonstrated in human subjects that the cingulate gyrus and the thalamic areas, specifically activated in the presence of applied pain stimulation, show brain activity that correlates with decreased pain sensation during and after acupuncture.
- The Gate Theory, first proposed by Melzack and Wall in 1965 states that smaller diameter nociceptive fibers can be blocked by tactile stimulation that activates larger diameter fibers. Acupuncture may act in a similar way by inhibiting nociceptor function through gentle stimulation of the mechanoreceptors at the needle insertion point, thus producing an analgesic effect.
- “Auricular Acupuncture in the treatment of Acute Pain Syndromes”

Auricular Acupuncture

- Auricular acupuncture refers to stimulation of points on the external ear, and has been used clinically for a myriad of conditions.
- Identified as a form of treatment in ancient Chinese documents dating back to 500 B.C, and its current use was codified by the French physician, Dr. Paul Nogier, in the 1950's.
- Through empirical observation Nogier noticed that direct stimulation of points affected specific body systems and regions, including but not limited to sciatic pain and low back pain.
- The National Acupuncture Detoxification Association, established in 1985 developed a 5 needle protocol which has frequently been integrated into collaborative medical models.
- The majority of research has focused on pain control, addictions, anxiety, as well as depression.
- “Auricular Acupuncture in the treatment of Acute Pain Syndromes”

The National Epidemic of Prescription Drug Addiction

- Prescription drug abuse is the Nation's fastest-growing drug problem. (white house)
- Opioid pain relievers (OPR), also known as opioid analgesics, have increased and now exceed deaths involving heroin and cocaine combined. (CDC vital signs)
- In 2008, drug overdoses in the U.S. caused 36,450 deaths. OPR's were involved in 14,800 deaths (73.8%) of the 20,044 prescription drug overdose deaths. (CDC vital signs).
- The total number of deaths due to drug overdose 35,450 deaths, is rapidly approaching the number of deaths from motor vehicle accidents 39,973, which is the leading cause of injury death in the United States. (CDC vital signs)
- In our military, illicit drug use increased from 5 percent to 12 percent among active duty service members over a three-year period from 2005-2008, primarily attributed to prescription drug abuse. (white house)
- From 1997-2007, the milligram per person use of prescription opioids in the U.S. increased from 74 milligrams to 369 milligrams, an increase of 402%. (white house)
- In 2000, retail pharmacies dispensed 174 million prescriptions for opioids; by 2009, 257 million prescriptions were dispensed, an increase of 48%. (white house)

Statistics Continued...

- Misuse and abuse of prescription painkillers was responsible for more than 475,000 emergency department visits in 2009, a number that nearly doubled in just 5 years. (CDC prescription painkiller overdoses policy impact brief)
- More than 12 million people reported using prescription painkillers non-medically in 2010, that is taking them without a prescription or for the feeling they cause. (CDC prescription painkiller overdoses policy impact brief)
- In a prospective, population-based study of injured workers with compensable low back pain, 38% of the workers received an opioid early in their care, most at their first doctor visit. Among the 6% who went on to receive opioids for chronic pain for 1 year, most did not report clinically meaningful improvement in pain and function , even though their opioid dose rose significantly over the year. (CDC grand rounds)

A Collaborative Approach

“Among the most promising strategies for the successful use of opioids to treat chronic non-malignant pain in those with limited access to care are: clear organizational pain policies and procedures; a written, dynamic treatment plan which focuses on functional improvement and holistic care; a signed patient-provider agreement for treatment that specifies mutual responsibilities of providers and patients and the potential risks of treatments; a team approach to care delivery and case conferencing that employs a group medical visit model; and a consistent, non-judgmental approach to evaluation behaviors inconsistent with the treatment plan.”

- Citation: Health Care for the Homeless Clinicians' Network

Benefits of Acupuncture in a Collaborative Model

- Can be used within a drug free or a pharmacologically based model.
- Facilitates a social support system
- Cost-effective
- More time with the patient including screening and referral
- Empowerment and education
- Increased patient satisfaction and autonomy with care
- Preventative -focus
- Acute or chronic management-focus
- Mitigates side-effects of western drugs and treatments
- Drug-free or pharmacologically based model
- Treats multiple diagnoses or single diagnosis
- Verbal and non-verbal method of healing
- Holistically encompasses mind, body, and spirit

Components of a collaborative approach to patient care

- Comprehensive pain management strategy
 - Self-administered therapies
 - Physical medicine
 - Psychological therapies
 - Early intervention
 - Addressing psychosocial needs
 - Cognitive behavioral therapy
 - Acupuncture
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- Citation: Health Care for the Homeless Clinicians' Network

Clinical Considerations

- Physical health history
 - Mental health history
 - Substance abuse history
 - History of chronic pain
 - History of trauma/trauma survivor
 - Living conditions
 - Lack of Social network/support system(s)
 - Consider internal/external influences and how this relates to patient compliance in care
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- “Health care for the homeless clinicians’ network”

Holistic Pain Management

- Clearly define goals in initial treatment plan
- Implement reasonable measures of evaluation
- Focus on quality of life
- Assist to decrease dependency on opiates/benzodiazepines and other potentially addictive medications
- Place more emphasis on encouraging positive behaviors, support systems, and self-reliance through motivational interviewing
- Establish patient-practitioner trust
- Involve other members of a multidisciplinary team to assist with individual patient needs

Holistic Pain Management Continued....

- Emphasize that this is a collaborative effort between the patient and clinician, not solely a clinician responsibility
- Facilitate acceptance of living with chronic pain
- Educate regarding pacing, relaxation techniques, and physical therapy or exercise as the chief interventions
- Emphasize that behavioral approaches and medications are of equal importance
- Inform that 30 percent reduction of pain intensity is a successful intervention
- Identify negative pain attitudes and address these through supportive and motivational interventions

A Non-Pharmacologic Pain Management Option

- A pilot study including 100 participants at Malcom Grow Medical Center, Andrews Air Force Base, Maryland found that patients who utilized acupuncture in the ER had a 23% reduction in pain compared to those who sought standard medical care.
- 19% reported that they did not get a prescription at the hospital following discharge.
- As a minimally invasive treatment at \$1.52 per patient, this is certainly an affordable therapy to practice and research which warrants further investigation and study
- “Auricular acupuncture in the treatment of Acute pain syndromes”

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