

Pain Management -- Art and Science

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What is Pain Management?

Pain is defined as an unpleasant physical and/or emotional experience often the result of tissue injury or described in terms of such injury. Pain is divided into acute and chronic components. Pain management seeks to modify, reduce or eliminate the experience of pain in order to restore a functional state.

Acute vs. Chronic

Acute pain provides a protective function. It helps us avoid or minimize bodily injury. Acute pain may persist until the injured area heals, usually in a few days up to a couple of weeks. Pain that extends beyond three months is defined as chronic pain because the majority of tissue healing has completed by this time.

Treatment

Treatment of acute pain is often straight-forward and relatively simple. Most acute pain subsides rapidly as healing progresses. Local measures like rest, elevation, ice, splints, or compression are effectively employed. Pain medications, when necessary, are usually quite effective and may relieve the majority of the pain temporarily. As healing occurs, the pain fades permanently.

Chronic pain treatment can be complex and not so simple. Chronic pain may not subside as healing progresses, and can be completely independent of tissue damage or repair. Many factors may contribute to chronic pain, including persisting injury, inflammation, nerve damage, body mechanics, stress, genetic factors, emotional and perceptual states.

Prevention

How does acute pain become chronic? Chronic pain probably develops as a complex interplay between under-treated acute pain, persisting painful stimuli and changes that occur in the nervous system over time. Genetic factors may play a role. Emotional, behavioral and perceptual states can help perpetuate painful conditions beyond their functional usefulness – that is, the protective function of pain is lost as it becomes chronic. Chronic pain prevention may require aggressive treatment of certain kinds of acute pain. This could mean “preemptive” pain treatment for planned procedures like major surgery, and the right kind of rehabilitative steps to recover from injury – no matter how minor. Medications, physical treatments, injections, emotional support, cognitive treatments and analgesics all have roles in the successful prevention and treatment of chronic pain.

Pharmaceutical and interventional treatments

How is chronic pain treated medically? A number of medical pain treatments exist that are quite successful. Most people think of pain pills (analgesics) first. Over-the-counter analgesics like acetaminophen or ibuprofen are surprisingly effective for most acute pain. Moderate to severe

pain may require the use of an opiate analgesic such as codeine or hydrocodone or morphine. Unlike acute pain, chronic pain may be poorly responsive to analgesic medications. In fact, we often encounter pain that is only partially responsive to analgesics. Even under the best circumstances, chronic pain may improve only 30% to 50% with an opiate analgesic. The balance of the pain needs to be addressed with other modalities. Fortunately other types of common medications also relieve pain. Effective pain relieving medications are found in the classes of medicines we call antidepressants, anticonvulsants, muscle relaxants, anesthetics, and others.

Alternative modalities

What about pain that is unrelieved with pain pills/analgesics? We know the basics for good pain management encompass restorative sleep habits, moderate physical exercise, balance of perceptual and emotional states, and spiritual effort. Without this basis, medicines and alternatives won't work. Once the basis is established, we find effective alternative treatments in a wide range of modalities. Physical therapy, pain psychology, biofeedback, acupuncture, nerve blocks, injections, massage and surgery are just some of the techniques we use successfully to treat pain. Treatments must be carefully chosen for the individual keeping the whole person in mind.

Prognosis

What is the prognosis for intractable pain treatment? With today's advances in research and treatments the prognosis for pain treatment is good. We can successfully manage chronic pain in the majority of individuals. Treatment choice, sequence and interdisciplinary cooperation are all important factors that determine successful outcomes.

Research

Scientists believe that the causes of chronic and intractable pain will be elucidated with further research. There are many treatment trials being conducted. If you are interested in opportunities for participating in research, see the following links.

[patientinfo.ninds.nih.gov/
clinicaltrials.gov/search/term=Chronic%20Pain](http://patientinfo.ninds.nih.gov/clinicaltrials.gov/search/term=Chronic%20Pain)