

Treatment with Medications

Pharmaceutical Treatment for Back Pain

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Introduction

The general consensus in the field of spinecare is that medication should not be used as a sole therapeutic approach, but should be considered as part of a more comprehensive therapeutic approach utilizing other forms of intervention such as rest, activity modification, spinal manipulation, clinical nutrition, exercise, healthy lifestyle modification, stress reduction and as well as other non-surgical approaches. On the shelves of pharmacies there are dozens of different medications utilizing phrases such as pain reliever, non-aspirin pain reliever, pills for backaches, sleep aids and nighttime pain relievers. Even though over-the-counter medications do not require a physician's prescription they still may produce adverse side effects.

Injections

For many years, spine specialists have utilized a variety of different injections in an attempt to relieve back pain and reduce inflammation in the spine. The most often used spinal injections include epidural steroid injections, nerve blocks and trigger-point injections. They are performed to target the involved area of the spine in order to promote earlier recovery, reduce risk and to improve functionality. One of the most common forms of spinal injections is the epidural steroid injection (ESI). The spinal epidural injection is used to deliver an anti-inflammatory chemical into a space within the spinal canal. ESI may be used to inject other pain-relieving substances, such as Lidocaine. The epidural steroid approach may also incorporate the injection of a saline solution to help flush out inflammatory substances. Commonly, epidural steroid injections used in an attempt to reduce inflammation within the spine.

Epidural injections can be used for diagnostic localization and therapeutic intervention. The risks of spinal injections include bleeding, nerve damage, infection, and puncturing of the dura. Puncturing of the dura can lead to a leak of cerebrospinal fluid and a resultant severe "spinal" headache. Spine injections are typically performed by spine specialists such as neurosurgeons, orthopedic surgeons, physiatrists, anesthesiologists and pain management specialists. There is conflicting information about the value of various types of injections. Some research studies have questioned the long-term benefits of epidural steroid injections.

Implantable Drug Pumps

Individuals who have disabling chronic back pain unresponsive to alternative methods may be given the option of receiving a morphine-pump implant. The pump is a device that provides a trickle of medication through a catheter-like tube that enters the spinal fluid. One of the advantages of this method over oral drug use is that a precise level of medication is provided with a

targeted tissue approach. The dose requirement with an implantable drug pump is typically a fraction of the dose required with an oral approach. For example, the dose of morphine utilized through an implantable morphine pump is approximately one-three hundredth of the dose of morphine that would have to be taken orally to deliver the same level of back pain relief.

Medical Management

Back pain and related neurological signs and symptoms may be managed with a pharmaceutical approach. The attending medical physician may prescribe medications such as non-steroidal anti-inflammatory agents and/or steroidal anti-inflammatory agents to reduce inflammation. The reduction of inflammation is often associated with a reduction of pain. Tricyclic antidepressants may be used to increase the quality of sleep and to help diminish the level of pain. Chronic pain may lead to the use of narcotics in isolated cases.

Prescription Pharmaceutical Approaches for Back Pain

Analgesics

Most people with back pain receive some benefit from the use of analgesic or pain-relieving medication. Pure analgesics do not reduce inflammation and are used purely for pain relief. Analgesics can be taken orally or applied topically. One of the most commonly used oral analgesics is acetaminophen (Tylenol). For many individuals, the use of an analgesic such as Tylenol is sufficient to reduce back pain. Acetaminophen is the active ingredient in many over-the-counter non-aspirin pain relievers. Narcotic analgesics such as Codeine, Oxycodone or Tramadol (Ultram) may be recommended for individuals with severe pain, such as that associated with disc herniation, vertebral fracture or spinal nerve root compromise. Narcotic analgesics are associated with significant side effects, such as drowsiness, grogginess and constipation. There is also the risk of developing dependence. Because of the risk for side effects, particularly the risk of dependence (addiction), physicians must carefully screen their patients and only use a narcotic approach when it is absolutely necessary. The duration of use should be limited to reduce the risk for dependence. Acetaminophen has less potential side effects than narcotic agents and is therefore more commonly used for the treatment of back pain. Some pharmaceutical agents have a combination of acetaminophen with a narcotic analgesic. Examples include acetaminophen with codeine (Fioricet, Tylenol with codeine). Oxycodone is combined with acetaminophen and Dolacet, Hydrocet, Floracet, Lortab and Vicodin. Tramadol is combined with acetaminophen and Ultraset.

Non-Steroidal Anti-Inflammatory Drugs

Inflammation is the body's response to tissue irritation or injury. The presence of inflammation is characterized by redness, increased blood flow, warmth, swelling and pain. Some inflammation is necessary for adequate tissue healing and repair. Non-steroidal anti-inflammatory (NSAIDs) medication reduces inflammation by chemically blocking the production of certain chemicals that induce inflammation. NSAIDs work like corticosteroids (steroids) without many of the more serious side effects. NSAIDs generally work within a few hours. They are effective pain relievers but are generally intended for short-term use. They should never be used for more than 2 weeks without consulting a physician. For anti-inflammatory treatment of chronic musculoskeletal conditions, time release NSAIDs are often prescribed. It takes longer for these drugs to take effect but the

time-release factor helps to keep blood levels at an effective level throughout a 24-hour period of time, thus reducing the likelihood of inflammation. This approach also helps to reduce gastrointestinal (GI) side effects.

One of the most widely used medications for reducing inflammation is the class of medications referred to as non-steroidal anti-inflammatory drugs (NSAIDs). One of the most commonly used NSAIDs is aspirin. Popular over-the-counter NSAIDs include ibuprofen (Advil, Motrin IB and Nuprin). NSAIDs work by reducing inflammation by blocking the production of chemicals that induce inflammation through increased levels of prostaglandins. Prostaglandins play a critical role in numerous bodily functions such as blood clotting, kidney function, and protection of the stomach lining.

NSAIDs can be a very effective approach for back pain, but there are potential side effects. One of the most common side effects of NSAIDs is gastrointestinal compromise. Gastrointestinal side effects include stomach pain, abdominal pain, nausea, indigestion, heartburn and vomiting. Chronic use of NSAIDs has been associated with increased risk for gastric ulcers with bleeding.

Steroids

Steroids may be used orally or may be injected directly into the spinal epidural space. Steroids are potent anti-inflammatory medications used to reduce swelling and diminish pain.