Local Anesthetics Effective For Neuropathic Pain

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By Lisa Stevens -- Lidocaine and similar local anesthetics are effective for treating pain that emanates from damaged nerves, according to a systematic review of current evidence.

Neuropathic pain, which can occur with chronic diseases or conditions, is frequently unresponsive to treatment and worsens over time.

"Intravenous lidocaine and oral derivatives relieve pain from damage to the nervous system," found authors Ivo W. Tremont-Lukats, M.D., of the M.D. Anderson Cancer Center in Houston, and colleagues. They add that the drugs, "were safe in controlled clinical trials for neuropathic pain, were better than placebo and were as effective as other analgesics."

The review appears in the most recent issue of The Cochrane Library, a publication of The Cochrane Collaboration, an international organization that evaluates medical research. Systematic reviews draw evidence-based conclusions about medical practice after considering both the content and quality of existing medical trials on a topic.

The authors reviewed 30 studies on the effectiveness of lidocaine and similar drugs mexiletine, tocainide and flecainide in treating pain. Local anesthetics work by decreasing sensation in a small area of the body.

The studies covered 371 patients given local anesthetics and 379 patients given placebos.
The patients studied had pain from cerebrovascular lesions or tumors, spinal cord injuries, multiple sclerosis, amputation and a variety of other causes, including pain for which there was no apparent cause.

Patients rated the intensity of spontaneous pain or its relief. Lidocaine administered by pump and mexiletine provided the best relief. However, there were some side effects reported, the most common being sleepiness, fatigue, nausea, numbness around the mouth, metallic taste and dizziness.

"For some patients in certain pain categories, lidocaine may be as good as other current therapies," Tremont-Lukats says, "This systematic review found that lidocaine and mexiletine were equally effective, unlike other reviews previously stating that mexiletine seemed to work better."

There are myriad challenges when treating neuropathic pain, according to Tremont-Lukats. "Its chronic nature, the immense variation between individuals and our incomplete knowledge on the pathophysiology of pain, despite progress made in the last 10 years, make pain difficult to treat," he says. "Another important challenge is that many doctors are not trained to recognize and treat neuropathic pain. It is even more worrisome that many patients are undertreated or their pain is not taken seriously."

V. Tim Malhotra, M.D., of the Memorial Sloan-Kettering Cancer Center in New York, agrees that treating neuropathic pain can be tough. "Getting complete relief of neuropathic pain is very difficult; often when we increase doses, we increase side-effects, many of which affect mental function."

The exact number of people in the United States with neuropathic pain is unknown, but estimates hover around a minimum of 3 million, according to the Society for Neuroscience.

Neuropathic pain is a complex, chronic pain state often with no obvious cause; often, nerve fibers themselves may be damaged, dysfunctional or injured and send incorrect signals to other pain centers. Typical causes are alcoholism; amputation; back, leg, and hip problems; cancer chemotherapy; diabetes; facial nerve problems; HIV infection or AIDS; multiple sclerosis; shingles; spine injury or surgery.

The drugs studied in the review article have been in used in other settings: lidocaine both as a topical and pump-administered medication typically for shingles, and mexiletine, tocainide and flecainide as antiarrhythmics drugs, used to control irregular heartbeat by slowing nerve impulses and making heart tissue less sensitive.