Could the Hot Stuff in Chili Peppers Ease Your Tingling Nerve Pain?

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(PhysOrg.com) -- Millions of people suffer peripheral pain and other troubling sensations accompanying diseases as varied as diabetes, AIDS, shingles and arthritis. Cancer patients also often suffer these so-called peripheral neuropathies because of their therapies.

Peripheral neuropathies include disorders of a nerve or nerves outside the brain and spinal cord; they can precipitate tingling, numbness, weakness, burning pain and other unwelcome sensations.

For afflicted patients, a new review suggests, although not strongly, that four of 10 people could experience some pain relief from topical capsaicin cream. Capsaicin is the active component of chili peppers.

Oxford University researchers Sheena Derry and Andrew Moore led the review, which compromised nine studies involving 1,600 adult participants.

The reviewers said it might be best to consider capsaicin cream as an extra pain-relief measure or a later, if not last, resort when treatment is inadequate, especially since there have been studies on oral medicines for neuropathic pain that provide clear evidence of their effectiveness and side effects.

One drawback with capsaicin is that commonly patients experience local skin irritation —burning, stinging or redness — at the application site. These side effects generally prove mild and transient but do lead some

patients to discontinue capsaicin.

Capsaicin preparations available in the United States include Zostrix, Capzasin-P and RT Capsin.

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

The researchers were following up on a related 2004 review about capsaicin treatment for neuropathic pain, which implied that capsaicin might serve as a useful addition to or as a single therapy for certain patients who did not respond well to, or could not tolerate, other treatments. Since 2004, new developments in capsaicin formulations, notably the development of a high-dose (8 percent) patch, added timeliness to the new research review.

Review studies compared topical capsaicin to either placebo or to another active treatment for pain. The studies involved either mild creams which patients can apply by themselves or a newer form, the high-dosage capsaicin patch, which a health care provider administers after applying a local anesthetic to the target area, to minimize the resulting stinging and burning.

In seven studies, 449 participants used capsaicin 0.075 percent in a cream base applied three to four times daily to painful sites for up to 12 weeks. A control group of 325 participants used placebo cream. Of participants who received the active cream, 41 percent experienced “some degree of pain relief, compared to about 26 percent with placebo,” the two authors wrote in an e-mail message. The amount of pain relief varied among studies, from substantial (pain half gone or

better) to undefined “improvement.”

In two studies, patients used a single daily dose of high-dose capsaicin cream applied via a patch left in place for 30 to 90 minutes. Thirty-nine percent of the 431 participants who received the capsaicin patch felt that it relieved their pain by at least one-third, compared with about 30 percent of the 278 participants with placebo patches, according to reviewers.

True double blinding represented a significant problem with the included studies, because capsaicin stings and burns while no placebo does. All the included studies recognized this potential problem and attempted to address it via methods like including other stinging ingredients in the placebos.

Scott Zashin, a clinical associate professor of medicine at the Southwestern Medical School at the University of Texas, said that generally he does not use capsaicin in his own practice: “One lack in this study is a failure to compare capsaicin creams to common counterirritants, such as Ben Gay or Icy Hot. The counterirritants create a warm or cool feeling to distract from the pain and they can be used on an as-needed basis, while capsaicin must be used regularly.”

Zashin said the review did not address “the fact that there are little data looking at the benefit-to-risk ratio of the high dose capsaicin. In addition, patients receiving the high-dose formulation required pretreatment with a local anesthetic preparation. It is unclear if this product is any better than other over-the-counter pain gels and may be more irritating with side effects such as burning.”

The current review agreed broadly with the 2004 study. For patients suffering pain daily and for their caregivers, the findings mean that the capsaicin treatments can provide some additional relief to patients who

have failed to respond well or have proven intolerant of other treatments. For those patients, wrote the authors, “Even a small degree of pain relief may be considered worthwhile.”

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