Successful Treatment of Refractory Postherpetic Neuralgia with Topical Gallium Maltolate: Case Report.

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Abstract

Introduction. Postherpetic neuralgia is a common sequela of herpes zoster (shingles), in which chronic pain may last for weeks to years. Currently, available treatments include systemic opioid analgesics, tricyclic antidepressants, corticosteroids, and anticonvulsants, as well as topical capsaicin and lidocaine. These treatments are commonly unsatisfactory, with fewer than half of treated patients experiencing more than a 50% reduction in pain.

Case. A 99-year-old woman had a 4-year history of severe postherpetic (trigeminal) neuralgia on the left side of her face. During those 4 years, numerous treatments were tried, including systemic opioid analgesics and anticonvulsants, and topical lidocaine and capsaicin, all with unsatisfactory results. The topical application of gallium maltolate, at a concentration of 0.5% in an emulsion of water and hydrophilic petrolatum, was found to relieve the severe pain within about 10 minutes, with the relief lasting for about 6-8 hours. The patient has been using this treatment for more than 5 years, with no adverse effects and a highly significant improvement in her quality of life.

Discussion. Gallium has significant anti-inflammatory activity, inhibiting the activation and proliferation of pro-inflammatory T cells. Because gallium is chemically similar to zinc, it can interfere with the activity of matrix metalloproteinases (zinc-bearing proteases), which have been implicated in the etiology of neuropathic pain, and it may suppress the secretion of substance P. Gallium may also inhibit viral replication and the inflammatory activity of viral proteins. This case provides rationale to study topical gallium maltolate in patients with refractory peripheral neuropathic pain.

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