



Relief of Acute Herpetic Pain by Intravenous Vitamin C: The Dosage May Make a Difference

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Dear Editor:

Intravenous high-dose vitamin C is a promising method for mitigating acute herpetic pain (AHP) and postherpetic neuralgia (PHN)¹⁻³. We are interested in the research by Kim et al.⁴ on the efficacy of intravenous vitamin C (5 g every second day for 3 times) on relieving AHP and decreasing the incidence of PHN. Although the incidence of PHN in the vitamin C group was significantly lower compared to that in the control group, no significant differences were noted in the intensity of AHP between the two groups. Therefore, Kim et al.⁴ concluded that intravenous vitamin C was ineffective in relieving AHP.

In describing the rationale for choosing the dosage of intravenous vitamin C, Kim et al.⁴ cited 3 references in which "effect of vitamin C has been reported at a dose of 2.5 g in PHN and at a dose of 7.5 g, 15 g in acute phase." Of these references regarding AHP, 1) Schencking et al.² reported total remission of the cutaneous lesions and AHP in 2 patients with shingles after intravenous vitamin C 15 g every second day for total doses of 60 and 90 g, respectively; 2) a prospective cohort study³, in which shingles patients received intravenous infusions of vitamin C (7.5 g for 2 to 4 times per week, for approximately 2 weeks) in addition to standard treatment, concluded that vitamin C at an average total dose of 60 g effectively reduced AHP. In the research by Kim et al.⁴, however, intravenous vitamin C in a total dose of 15 g was surprisingly low in view of the above-mentioned references. More importantly, there was no data on the efficacy of vitamin C greater than 15 g on AHP in that study. Kim et al.⁴ concluded that intravenous

vitamin C was ineffective in relieving AHP; however, effects of vitamin C have been demonstrated to be dose-dependent⁵.

Recently, we had successful experience of relieving AHP by intravenous high-dose vitamin C (5 g/d) in one female. On the third day of intravenous vitamin C therapy (for a cumulative dose of 15 g), AHP was not relieved at all. This finding was compatible with that of Kim et al.⁴ Further treatment with intravenous vitamin C, however, brought about obvious reduction of pain intensity, frequency and duration of each pain episode in one week. The patient received a total of 35 g of intravenous vitamin C. In conclusion, while the efficacy of high-dose vitamin C on AHP is not yet conclusive, the conclusion by Kim et al.⁴ that intravenous ascorbic acid did not relieve AHP effectively was unjustified. Our case supported the valuable finding by Kim et al.⁴ that intravenous vitamin C in a total dose of 15 g was not enough for relieving AHP. Nonetheless, a more proper conclusion is that a total dose 15 g of intravenous ascorbic acid did not effectively relieve AHP.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

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Relief of Acute Herpetic Pain by Intravenous Vitamin C: The Dosage May Make a Difference: Authors' Reply

Dear Editor:

Thank you for your valuable comments on our study. However, the authors have a different idea of what readers have sent us. The genesis of acute herpetic pain (AHP) is thought to be from inflammation and damage to the dorsal root ganglion (DRG) and peripheral nerves. The inflammatory changes in the DRG can reduce intraneural blood flow, causing hypoxia, endoneural edema, and neural injuries. This process finally leads to the development of neuropathic pain. Because vitamin C acts as a scavenger of the reactive oxygen species, it is hypothesized to have protective effects on the nerve¹. So, there were several reports that AHP has improved through high dosage of vitamin C administration. But, in early investigations about vitamin C administration for AHP, most of studies were not in the form of randomized controlled trials¹⁻³. Although high dosage of vitamin C can improve in acute pain of herpes zoster, it is difficult to determine exactly whether or not to be effective because of the absence of control groups. In order to identify the comments of readers, we believe that randomized, placebo-controlled clinical studies using high dosage of vitamin C in number of herpes zoster patients are necessary.

Our study also has several limitations that are to confirm visual analogue scale (VAS) of pain retrospectively and to doubt the objectivity of VAS score. Nevertheless, the results of our study did not reflect a significant decrease in acute pain, unlike previous studies, but intravenous vitamin C administration was effective in preventing postherpetic neuralgia⁴. Please note that our study is meaningful in this regard and wishes to be helpful to readers. Thank you very much.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

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