

# CORNERSTONE Critiques

Commentary by Richard A. Johnson, MD, on Current Literature

## Intranasal Lidocaine for the Treatment of Migraine Headache: A Randomized, Controlled Trial

Blanda M, Rench T, Gerson LW, Weigand JV. *Acad Emerg Med.* 2001;8:337–342.

**Objective:** To evaluate the effect of intranasal lidocaine for immediate relief (5 minutes) of migraine headache pain. **Methods:** A randomized, double-blind, placebo-controlled clinical trial at two university-affiliated community teaching hospitals enrolled patients 18–50 years old with migraine headache as defined by the International Headache Society. Patients who were pregnant, lactating, known to abuse alcohol or drugs, or allergic to one of the study drugs, those who used analgesics within two hours, or those with a first headache were excluded. Statistical significance was assessed by using chi-square or Fisher's exact test for categorical variables and Student's t-test for continuous variables. Patients rated their pain on a 10-centimeter visual analog scale (VAS) prior to drug administration and at 5, 10, 15, 20, and 30 minutes after the initial dose. Medication was either 1 mL of 4% lidocaine or normal saline (placebo) intranasally in split doses 2 minutes apart and intravenous prochlorperazine. Medications were pack-

aged so physicians and patients were unaware of the contents. Successful pain relief was achieved if there was a 50% reduction in pain score or a score below 2.5 cm on the VAS. **Results:** Twenty-seven patients received lidocaine and 22 placebo. No significant difference was observed between groups in initial pain scores, 8.4 (95% CI = 7.8 to 9.0) lidocaine and 8.6 (95% CI = 8.0 to 9.2) placebo ( $p = 0.75$ ). Two of 27 patients (7.4%, 95% CI = 0.8 to 24.3) in the lidocaine group and three of 22 patients (13.6%, 95% CI = 2.8 to 34.9) in the placebo group had immediate successful pain relief ( $p = 0.47$ ), with average pain scores of 6.9 (95% CI = 5.9 to 7.8) and 7.0 (95% CI = 5.8 to 8.2), respectively. No difference in pain relief was detected at subsequent measurements. **Conclusion:** There was no evidence that intranasal lidocaine provided rapid relief for migraine headache pain in the emergency department setting.

© 2001 Elsevier Science B.V., Amsterdam. All rights reserved.

### COMMENTARY

For those of us who have had the difficult experience of being faced with the challenge of treating a patient with a severe or transformed migraine or treating a drug-seeking patient with chronic headache pain, the reported success of intranasal lidocaine with rapid resolution of symptoms sounds like “manna from heaven.” No such luck. With headache patients, we are still required to get an accurate history, perform a competent examination, make use of our knowledge of headache pathophysiology, and develop a treatment strategy around hydration, antiemetics, triptans, and the subtleties of chronic pain management interventions. This is probably just as well, for if intranasal lidocaine had proved an effective abortive therapy for severe migraine headaches, the chief complaint recorded by intake personnel would simply have changed from “severe migraine not relieved with Toradol” to “severe migraine not relieved by intranasal lidocaine.”