Exploratory study to investigate the effectiveness of intravenous magnesium as an abortive for status migrainosus in an outpatient infusion center, and characterize the patients who benefit from the therapy” Xu et al (2019).

Abstract:

OBJECTIVES: Exploratory study to investigate the effectiveness of intravenous magnesium as an abortive for status migrainosus in an outpatient infusion center, and characterize the patients who benefit from the therapy.

PATIENTS & METHODS: Retrospective analysis of 234 migraine patients who received IV magnesium as a headache abortive, at the headache clinic of University of Southern California. Additional intramuscular (IM) injections for nausea (prochlorperazine, ondansetron, metoclopramide) or for refractory pain (ketorolac, dexamethasone, sumatriptan, dihydroergotamine), were administered as necessary. Immediately before and after treatment, self-reported pain levels were recorded using an 11-point numeric pain rating scale (0-10).

RESULTS: Our patient sample has a mean age of 44 years and was predominantly female (79%). 36 (19%) had migraine with aura. Overall, pain score decreased from 5.46±2.39 to 3.56 ± 2.75 (P < 0.001) after magnesium infusion. One hundred twenty-seven (54%) patients had clinically significant pain reduction, as defined by pain decrease ≥ 30%. One hundred
and four patients (44%) received IV magnesium and did not require additional intramuscular (IM) medications for pain. In patients who did not receive additional IM medications for pain, pain score decreased from 4.76 ± 2.41 to 2.95 ± 2.70 (p < 0.001), and 61 out of 104 (59%) experienced ≥ 30% pain reduction. Patients with less severe pain tended to have a better response than patients with more severe pain, as patients with ≥30% pain reduction had a significantly lower pre-treatment pain score (p = 0.018). CONCLUSION: For a subset of patients with status migrainosus, IV magnesium therapy results in clinically significant pain relief without the need for intramuscular pain medications. Therefore, IV magnesium may be useful as a cost-effective first-line parental therapy for status migrainosus, especially for patients who initially present with lower pain intensity.

You may also be interested in...

Outpatient parenteral antibiotic therapy overview
Optimal infusion rate for a range of IV antibiotic therapy
Implementing outpatient parenteral antimicrobial therapy for children

Reference:

DOI: 10.1016/j.clineuro.2019.01.007