

Abstract Template

Title: Impact of Haloperidol as Adjunct Therapy in Patients with Intractable Migraine

Author(s) and Institution(s):

Jiajun Xu, Pharm.D.¹; Elizabeth Nothdurft, Pharm.D., BCPS¹; Ryan Medas, Pharm.D., BCPS¹.

1. St. Luke's Hospital – St. Louis, Missouri

Introduction:

Current standard of care for treatment of intractable migraine includes intravenous dihydroergotamine (DHE) per the Raskin Protocol. This treatment does not provide relief for all patients. Evidence suggests dopamine involvement in migraine pathophysiology, supporting utility of dopamine receptor antagonists. Two small studies demonstrated single-dose haloperidol was efficacious in pain reduction associated with migraine. The purpose of this study was to determine whether the addition of haloperidol to DHE will provide clinically significant pain relief.

Methods:

This retrospective, single-center, cohort study compared patients who received DHE per the Raskin Protocol with and without haloperidol. Patients were matched in a 1:1 ratio based on age, gender, total DHE amount, metoclopramide, and glucocorticoid usage. The primary outcome was the mean reduction in pain. Secondary outcomes include hospital length of stay, time to significant pain relief, pain reduction $\geq 50\%$ from admission, rescue medication usage, opioid usage, 7-day readmission rate, and adverse effects associated with haloperidol.

Results:

A total of 70 patients were evaluated in this study. No significant difference in mean pain score reduction was observed between the two groups, (4.7 vs. 5.4, $p=0.31$). Median time to initiation of haloperidol was 10.5 hours (IQR 6.1 – 18.0 hours) from admission, and the median dose administered was 2 mg (IQR 2.0 – 5.0 mg). While no significant differences were observed with the secondary outcomes, there was a numerical decrease in time to significant pain relief with the combination therapy group (44.1 vs. 49.3 hours, $p=0.56$). Haloperidol use was not associated with any significant adverse effects.

Conclusions:

The addition of haloperidol to DHE in patients with intractable migraine did not provide additional pain relief. Considerations for future studies may be warranted to investigate the efficacy of higher dosage of haloperidol and earlier time to drug administration.