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CAT Block 8, 2016-2017
Alcoholism: Clinical and Experimental Research

Reference Article: Myrick, Hugh, Patrick K. Randall, Elizabeth Boyle, Raymond F. Anton, Howard C. Becker, and Carrie L. Randall. "A Double-blind Trial of Gabapentin versus Lorazepam in the Treatment of Alcohol Withdrawal." Alcoholism: Clinical and Experimental Research 33.9 (2009): 1582-588. Print.

PICO Question: Is the utilization of gabapentin effective in the treatment of alcohol withdrawal when compared with lorazepam?

Introduction: Benzodiazepines are standard of care in the treatment of alcohol withdrawal. However, they tend to have significant side effects, including actuating the effects of alcohol, blunting cognition, respiratory depression, not to mention the potential for abuse. They may also cause early relapse to alcohol use. Gabapentin may represent an effective alternative, as it has much less potential for abuse, a smaller side effect profile, and is readily available.

Methods: About 100 individuals voluntarily seeking treatment for alcohol withdrawal were randomized in this double blind, randomized controlled trial. Participants in the Gabapentin group received 900 mg tapered to 600 mg, or 1200 mg tapered to 800 mg, based on their initial CIWA-Ar rating (a smaller dose of 600 mg starting for Gabapentin was not included in analysis after it was discontinued due to reports of unwitnessed seizure-like episodes). The Lorazepam group received 6 mg tapered to 4 mg. The severity of withdrawal symptoms was measured on days 1-4, and 5, 7, and 12 days post-treatment, utilizing the CIWA-Ar scale.

Results: Both groups saw decreases in CIWA-Ar scores. While gabapentin patients were more likely to relapse on day 1, lorazepam participants had a higher chance of relapse on the first day of dose tapering, as well as the second day off medication. The gabapentin groups reported less craving, anxiety, and sedation. The Beck Depression Inventory was significantly lower in the gabapentin group. No patients experienced delirium tremens. High dose gabapentin groups reported higher ease of returning to work.

Discussion: Based on the results, it appears that gabapentin was as effective, if not more so than lorazepam. There did not seem to be any increase in deleterious side effects. Both drugs seemed to be equally safe and tolerable. The plus side of Gabapentin, is that it is not metabolized by the liver, which would be ideal in alcoholics as they often have concomitant liver disease. It was postulated that gabapentin had lower risks of relapse as it more successfully decreased craving, anxiety/depression, and sympathetic side effects, all likely triggers that would cause one to resume drinking. These discoveries specifically applied to patients with moderate withdrawal symptoms (CIWA-Ar 8-15), and further study would be needed in patients with more severe symptoms.

Limitations: For ethical reasons, there was no placebo group. Individuals enrolled did not have many other co-morbidities, including diabetes, renal dysfunction, heart disease, etc. There was a relatively small sample size. Gabapentin cannot be given parenterally, and thus would be ineffective in vomiting patients. Different dosing regimens may have yielded different results.

Bottom Line: Although there are very specific criteria for discharging ED patients with alcohol withdrawal symptoms, gabapentin is likely a more safe and efficacious drug for managing these patients than lorazepam.