Which drug is more effective in the treatment of alcohol withdrawal

Food & Diet, Alcohol

Alcoholism is a long standing health issue, and there has been ongoing research to seek out drugs that could effectively help to treat alcoholism, acute and long-term. According to an article by Johnson, Swift, Addolorato, Ciraulo, and Myrick (2005), a challenge has been to identify medications that not only reduce the rewarding effects of alcohol, but the dependence, post cessation craving, and the withdrawal craving. Lorazepam and gabapentin have been used for the detoxification of alcohol dependent patients.

Lorazepam is a type of benzodiazepine, an antianxiety medication. Gabapentin is a type of anticonvulsant drug originally used to prevent seizures. “ Benzodiazepines represent the standard of care for the treatment of alcohol withdrawal” (Myrick, Malcolm, Randall, Boyle, Anton, Becker, & Randall, 2009). In recent studies, gabapentin has shown to be effective and safe (Johnson et. al, 2005). The question remains: which drug is more effective in the treatment of alcohol withdrawal?

In an article about alcohol withdrawal requiring massive prolonged benzodiazepine infusion by Hayes, Faestel, Shimamoto, and Holland (2007), the authors discuss a “ patient with prolonged alcohol withdrawal requiring massive standing doses of benzodiazepines. ” This was a case study in an army medical center in Honolulu. The patient was a 58-year-old alcohol dependent male. The patient was presented to the ICU unit after “ an uncomplicated cystoprostatectomy for transitional cell carcinoma of the bladder” (Hayes et. al, 2007). The patient had a prolonged history of alcohol and drug abuse.

Last use of alcohol was unknown. Three days after entering ICU, patient had severe agitation. IV lorazepam was started due to persistent agitation. Diazepam was also added to the treatment. Over the course of 37 days the patient had escalating agitation and required continuous IV infusions of both lorazepam and diazepam. No toxicity from the high-dose medication was observed. In summary, the authors said, “ alcohol withdrawal is common but treatable and the single use of GABAergic medication is likely to be of benefit to the patient.

They went on to suggest, “ An appropriate agent should be chosen, and adequate dosage and dosing should be clearly determined and documented early in the course of care so that the entire team is aware of the treatment plan and knows how to implement that plan” (Hayes et. al, 2007). Another article, which discussed the safety and efficacy of GABAergic medications in treatment of alcoholism, had a section discussing the safety of gabapentin. Johnson, et. al, (2005), were discussing, in their article, about a symposium that took place, and the particular section about the safety of gabapentin was covered by Hugh Myrick.

Hugh Myrick (2005), points out that an “ ideal medication for the detoxification of alcohol dependent patients would suppress withdrawal rapidly, suppress drinking behaviors, not interact with alcohol, cause little or no ataxia, or incoordination, and have a low potential for abuse. ” Gabapentin fulfills some of these criteria, and has had several case reports and studies evaluating its use in the treatment of alcohol withdrawal with positive results in general.

Furthermore, Myrick reported a laboratory study found a lack for interaction between gabapentin and alcohol. Initial evidence suggests no negative interactions between alcohol and gabapentin in regards to side effects like stimulation, intoxication, and sedation, so the drug may be used safely. Further studies need to be evaluated for its efficacy of treatment on alcohol dependence. Conclusively, gabapentin can be used for withdrawal but, may not be safe for use of treating alcohol dependence.

Research was done to compare gabapentin to lorazepam in the treatment of alcohol withdrawal. Myrick, Malcolm, Randall, Boyle, Anton, Becker, and Randall (2009) performed a randomized double-blind treatment on 100 individuals seeking outpatient treatment of alcohol withdrawal with Clinical Institute Withdrawal Assessment for Alcohol-Revised(CIWA-Ar) ratings ? 10. Subjects were either given 2 doses of gabapentin, 900 mg tapering to 600 mg or 1200 mg tapering to 800 mg; or given lorazepam, 6 mg tapering to 4 mg for 4 days.

Severity of withdrawal from alcohol was measured by the CIWA-Ar on days 1-4 of treatment and days 5, 7, and 12 post treatment. Verbal reports and breath alcohol levels were measurements of alcohol use. Results showed that CIWA-Ar scores reduced in all groups overtime. High-dose gabapentin statistically did the best but was clinically similar to lorazepam. Lorazepam patients had higher probabilities of drinking on day 2 (the first day the dosage decreased), as well as the second day off the medication.

Gabapentin treated groups were less likely to have craving, anxiety and sedation compared to the lorazepam treated groups. Overall, the gabapentin

treated group had a less probability of drinking and was well tolerated. Some limitations to the study were that the participants selected had mild to moderate withdrawal severity and were in better general health than patients presenting the ED or hospitals. Also, no placebo group was presented in the study for ethical reasons, so no absolute comparisons can be made between the two drugs (Myrick, et. al, 2009).

Benzodiazepines have been the medicine of choice in treating alcohol withdrawal. Ongoing research is being done in search of more drug interventions to be used. Overall, GABAergic medications are safe and effective, yet there are still challenges to overcome. The first article discussed showed a case study in which long term IV infusion was used, no toxicity was shown, but agitation was still growing over 37 days of treatment. The treatment was safe for that patient, but there was an element missing, and that is what the research is trying to achieve.

The second article had many topics discussed, but the highlighted topic was gabapentin and its safety. Gabapentin is a drug that has shown in several studies to be a drug that could be used in the treatment of withdrawal of alcohol, and be as effective and in some circumstances more effective than lorazepam. Gabapentin has its limitations and more research needs to be done. With this current research, more possibilities are open, yet more limitations are still made challenging.