

Critical Care

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EFFICACY AND SAFETY OF DEXMEDETOMIDINE IN MANAGEMENT OF ALCOHOL WITHDRAWAL: EVIDENCE FROM A META-ANALYSIS

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PURPOSE: The role of dexmedetomidine in the management of alcohol withdrawal is not well established. We conducted a meta-analysis to assess the efficacy and safety of this drug for this purpose.

METHODS: We performed a literature search of all published full-length articles that studied and compared data on utilization of dexmedetomidine versus placebo in addition to the standard symptom triggered benzodiazepine use. Primary outcomes for the study were ICU length of stay and total length of hospitalization. Secondary outcomes were the adverse effects including bradycardia and hypotension.

RESULTS: A total of 5 studies, (2 randomized control trials and 3 retrospective studies) were included in the analysis. 250 patients received the study drug from a total of 638 patients. There was no difference in the mean length of stay in ICU (Std mean difference 0.18; 95%CI [-1.24, 1.60], p-value 0.80) and total length of hospitalization(Std mean difference 0.20; 95%CI [-2.25, 2.65 7.07], p-value 0.87) between the case and control group. There was a non-significant trend toward more hypotensive episodes in the case group (OR 2.61, 95% CI [0.96, 7.07]; p-value 0.06). The number of bradycardia episodes was significantly higher in the case group (OR 7.89, 95% CI [2.19, 28.4]; p-value 0.002).

CONCLUSIONS: Dexmedetomidine has no benefit and is associated with a higher incidence of adverse events for the management of alcohol withdrawal.

CLINICAL IMPLICATIONS: At present, there is no compelling evidence to support dexmedetomidine in the management of alcohol withdrawal. Further studies are required to assess any additional benefits of this drug.

DISCLOSURE: No significant relationships.

KEYWORDS: Alcohol withdrawal, Dexmedetomidine, Metaanalysis

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