P-04
Oral clonazepam and lorazepam in the treatment of methamphetamine-induced agitation in children; a pilot study

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Objective: The increasing trend of abusing stimulants as well as the hidden nature of this abuse within the family has resulted in a dramatic increase in the frequency of accidental stimulant toxicity in children [1]. Rapid intravenous administration of benzodiazepines can cause apnea and respiratory depression [2, 3], a complication that is unlikely with oral benzodiazepines. We aimed to evaluate the efficacy of oral clonazepam and lorazepam following initial parenteral benzodiazepine administration to control methamphetamine-induced agitation in children.

Methods: In a single-center pilot study between January 2017 and January 2018, intravenous diazepam (0.2 mg/Kg) was administered to all pediatric patients to initially control their agitation. This was followed by oral clonazepam (0.05 mg/kg in 15 cases) or oral lorazepam (0.05 mg/kg in 15 cases) to control the relapse in toxicity.

Results: Median [IQR] (range) age was 15 [10, 36] (6-144) months. All children were accidentally exposed to methamphetamine. Most exposures happened at night (83.3%), including all passive smoking cases and 87.5% of crystal powder ingestions. In 23 (76.7%) and 7 (23.3%) patients, oral and passive inhalational methamphetamine exposure were the source of poisoning. The most common symptoms/signs were agitation (29 patients; 96.7%), mydriatic pupils (26; 86.7%), tachycardia (20; 66.7%), insomnia (18; 60%), stereotypic movements (12; 40%), tachypnea (8; 26.7%), vomiting (7; 23.3%), talkativeness (5; 16.6%), delusion, tremor, sweating (2 patients each; 6.7%), and hallucination, seizure, hypotension, hypertension, and hyperthermia (one patient each; 3.3%). There were no differences in baseline characteristics of the two intervention groups before treatment. The two treatment modalities (clonazepam versus lorazepam) were similarly effective in terms of agitation relief, hospital stay, and response to treatment.

Conclusions: Oral clonazepam and lorazepam are similarly efficient in treatment of methamphetamine-induced agitation in children with minimal complications.

References:

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