

188. Pediatric marijuana ingestions: the ToxIC experience 2010–2016

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Background: Decriminalization, legalization, and medical use of marijuana have increased availability and diversified exposures. This is particularly true of pediatric exposures to marijuana and marijuana edible products. The clinical effects of marijuana on children may be different and potentially more severe when compared with adults. Previous research has looked at subsets of pediatric marijuana exposures, and significant clinical outcomes requiring ICU admission have been reported. More data are needed regarding the clinical features and circumstances surrounding pediatric marijuana exposures.

Methods: Cases involving marijuana as the primary exposure in the pediatric (age ≤ 12) population reported to the ToxIC Registry between 1 January 2010 and 31 December 2016 were reviewed. Cases were excluded if more than one primary exposure was present. Data collected included demographics, exposure year and conditions, clinical outcomes, and treatment.

Results: Thirty-five cases listing marijuana as the primary agent were identified. Five cases were excluded for the presence of another primary coingestant, which included nicotine, methamphetamine, ethanol, and cocaine, leaving a total of 30 cases. Sixteen (53%) were female. Most cases were from Arizona (23%), Colorado (23%), and New York (17%), see Figure 1. Twelve (40%) were under 2 years of age, 12 (40%) were 2–6 years of age, and 6 (20%) were 7–12 years of age. The number of cases increased significantly after 2013: 2010 (0%), 2011 (6.7%), 2012 (0%), 2013 (10%), 2014 (33.3%), 2015 (13.3%), and 2016 (36.7%). Most cases (87%) involved unintentional exposures. The majority (63%) were oral ingestions, two (6.7%) were inhalational, and in nine cases (30%), the route of ingestion not reported. Twenty-eight (93.3%) reported signs or symptoms of toxicity. The only reported toxidrome was sedative hypnotic (30%) syndrome. Coma/CNS depression was common, occurring in 21 cases (64.5%). Reported signs are detailed on Table 1. Toxicologic treatment was given in nine (30%) cases: six (20%) were given fluid resuscitation, two (10%) were given benzodiazepines, and two (6.7%) patients were intubated. No deaths were reported.

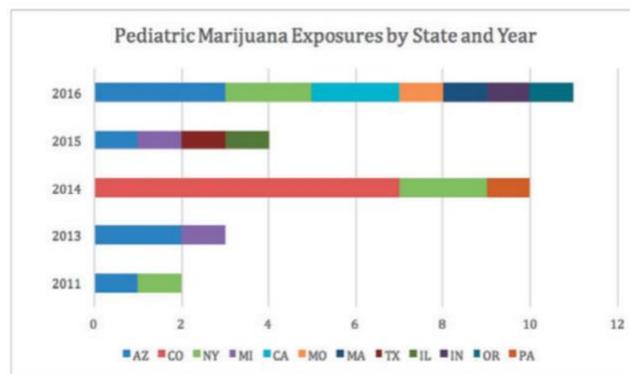


Figure 1

Table 1: Clinical Signs after Marijuana Exposure in Children

Signs	Number of patients
Coma/CNS depression	21
Hyperreflexia/myoclonus/clonus/tremor	3
Delirium/Toxic psychosis	2
Seizure	2
Hallucination	2
Agitation	2
Respiratory depression	2
Tachycardia (HR >140)	2
Hypotension (BP <80)	1

Conclusions: Thirty unique cases of pediatric marijuana exposures were reported to the ToxIC Registry between 2010 and 2016, with a trend of increasing exposures over the study years. The majority of cases were unintentional oral exposures. Depressed mental status was common and intubation was uncommon. This study is limited by absence of confirmatory testing.