Currently, 25 states have varying degrees of legalization of marijuana. Most are medical marijuana but 4 states (Colorado, Washington, Alaska, and Oregon) and the District of Columbia have legalized recreational marijuana. This has led to a rise in certain unexpected health concerns. With the looming possibility of Maine legalizing recreational marijuana, we thought this was a good time to look at some of the early literature coming out of Colorado.

The 3 topics we chose were cannabinoid hyperemesis syndrome (CHS), hash-extraction butane explosions, and pediatric exposures to marijuana products.

CHS is a poorly understood variant of cyclic vomiting syndrome that started getting described in approximately 2011. These patients present with cyclic vomiting, abdominal pain, and compulsive showering. There tend to be minimal findings on lab and imaging evaluation and there is generally improvement of symptoms with cessation of cannabis. In 2015, Kim et al demonstrated that the prevalence of cyclic vomiting patients to 2 Denver-area hospitals nearly doubled after the liberalization of medical marijuana. These patients were more likely to endorse marijuana use. CHS can be difficult to treat and sometimes can require multiple antiemetics. In their study, the use of promethazine was associated with admission.

*Take home: It is reasonable to consider the diagnosis of CHS in patients presenting for cyclic vomiting with concomitant use of marijuana. While care is generally supportive, cessation of cannabinoid use is the definitive treatment although it is unclear if patients will heed this advice.*

The quest for purer and more potent THC has led to the home-chemist attempting to increase their yield. Butane hash oil (BHO) also known as “honey oil,” “shatter,” “wax,” or “dab,” is a potent concentrate, which may contain more than 90% tetrahydrocannabinol. BHO is made using a hydrocarbon, most commonly butane, as a solvent to extract THC from marijuana clippings. During the extraction process, the highly flammable butane gas can be easily ignited. In Colorado, there was a dramatic increase in presentations to the burn center for injuries from explosions from the extraction of hash oil. There were 0 cases prior to medical liberalization, 19 during 3 years of medical liberalization, and 12 in 8 months of legalization.

*Take home: These injuries seem to certainly be as a direct result of trying to increase potency of THC. We may start seeing these burn patients, some with significant injury requiring grafting, moving forward.*

The final and perhaps most concerning study looked at pediatric exposures and calls to a regional poison center before and after liberalization of marijuana. Wang et al demonstrated that marijuana exposure visits and population rates at the children’s hospital significantly increased in the 2 years following legalization compared with the 2 years prior to legalization. The regional poison center exposure call average and population rates also significantly increased. Almost half of the patients seen in the children’s hospital in the 2 years after legalization had exposures from recreational marijuana, suggesting that legalization did affect the incidence of exposures. More than half the exposures were from edible products which highlights the ever-present concern of making things attractive to kids. Many of the patients had significant workups and admissions with 2 intubated. There were no deaths.

*Take home: Pediatric visits may rise as marijuana becomes more accessible. It will become increasingly more important to ask about these products during the evaluation of the altered child as this may help guide evaluation and management.*