Marketing of legalised cannabis: a concern about poisoning

As a result of cannabis liberalisation in North America, legal cannabis-based industries are developing and a new generation of δ-9-tetrahydrocannabinol (THC)-containing products are emerging. Novel and attractive designs are now available, such as cannabis sweets and recreational vape pens with flavoured and highly concentrated cannabis oil cartridges. Therefore, cannabis legalisation is not only allowing recreative or therapeutic users to legally use cannabis; it also opens up opportunities for the cannabis industry to attract new customers. However, these new products are a concern since they could cause accidental and unintentional poisonings, particularly in children.

In February, 2019, the Centre Antipoison et de Toxicovigilance de Paris (Paris, France) recorded the first poisoning case involving newly imported THC products (recorded in the national database of intoxication cases, unpublished). This event received attention because of the high THC concentration in commercially available hash oil (84% THC) and edible cannabis products (3·5 mg THC in each cannabis edible; cannabis cartridge XJ-13, ELEVATE, CA, USA). Similarity between the cannabis oil cartridges and e-cigarette devices is also a concern: 197 (47%) of 419 cases of oral exposure to e-cigarette devices reported to the Centre Antipoison et de Toxicovigilance de Paris between 2010 and 2018 occurred in children younger than 5 years. If these poisonings had involved cannabis oil cartridges with these high levels of THC, severe poisoning would have been expected in these children, since poisonings have been reported with less concentrated traditional formulations of cannabis.[1–3]

Moreover, edible cannabis sweets, which are highly attractive to children, contain 3·5 mg THC per sweet. Of the 11 cases of poisoning involving a vitamin supplement reported in children younger than 5 years in Paris between 2010 and 2018, a mean of 25 pills were ingested. If the same poisoning had occurred with cannabis sweets, 87·5 mg of THC would have been ingested by each child, which could have induced severe effects. The potential for severe acute poisoning with THC products should be considered and a more conservative approach, with marketing restrictions on new THC products, should be recommended in countries aiming to legalise cannabis.

We declare no competing interests.

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1 Richards JR, Smith NE, Moulin AK. Unintentional cannabis ingestion in children: a systematic review. *J Pediatr* 2017; **190:** 142–52.
2 Claudet I, Mouvier S, Labadie M, et al. Unintentional cannabis intoxication in toddlers. *Pediatrics* 2017; **140:** e20170017.
3 Nappe TM, Hoyte CO. Pediatric death due to myocarditis after exposure to cannabis. *Clin Pract Cases Emerg Med* 2017; **1:** 166–70.


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