

Slovenia. **Methods:** In this retrospective study we analyzed the clinical presentation of adult patients poisoned with hashish oil who were treated in the past 7 years (2008–2014) at the University Medical Centre Ljubljana (UMCL), the primary city hospital for the Slovenian capital city of Ljubljana, serving a population of 600,000 inhabitants. We analysed the demographic data, clinical picture and treatment of hashish oil-poisoned patients. **Results:** Over the study period 19 adult patients poisoned with hashish oil were hospitalized in the UMCL (2008 $n=1$, 2009 $n=1$, 2011 $n=1$, 2012 $n=2$, 2013 $n=4$, 2014 $n=10$). Patients poisoned with hashish oil were older than other cannabis users (mean age 47.4 years) and they did not combine hashish oil with other illegal substances or alcohol. Circumstances include 9/19 patients who consumed hashish oil in anticipation of symptomatic relief or resolution of their illness (e.g. malignancies, gout, arterial hypertension) or to achieve relaxation (5/19). On presentation clinical signs included drowsiness (10/19), slowness (5/19), malaise (4/19), confusion (3/19), anxiety (3/19), hallucinations (2/19), distorted perception of the body or surroundings (2/19) and euphoria (2/19). Patients often felt nausea (9/19) and vomited (3/19). They also had dysarthria (5/19), mydriasis (4/19), diaphoresis (3/19), tremor (2/19) and muscle spasms (2/19). They were tachycardic (7/19) or bradycardic (6/19). Most patients (16/19) needed active treatment, mostly parenteral hydration (11/19), benzodiazepines (5/19) and antiemetics (1/19). Decontamination with activated charcoal was performed in 2 patients; 11/19 patients were hospitalized for a brief period (1–2 days). All of them survived poisoning with hashish oil. **Conclusion:** The frequency of hashish oil poisoning has increased in Slovenia during the last few years. Accordingly, urine THC screening is becoming essential in older patients with unexplained altered consciousness and nausea to confirm diagnosis.

71. Online survey on prescription medicine misuse: what is the evidence for prescription opioid misuse in Singapore?

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Objective: Prescription opioid misuse has been shown to be a serious public health issue in the US and Europe.[1,2] Our objective was to establish the awareness of a range of prescription opioids and the prevalence of their misuse (defined as use without a doctor's prescription or for any reason other than what was recommended by your doctor) in Singapore where there is little data available. **Methods:** An online survey administered through a market research company in September 2015. Basic demographic data (gender, age, race, employment status) and data on whether individuals had heard of a range of opioid drugs and if so, whether they had ever misused them were collected. **Results:** One thousand respondents completed the survey: 500 (50.0%) male, 499 (49.9%) female, and 1 (0.1%) transgender; median (IQR) age was 35 (29–45) years; 82.5% were Chinese, 8.2% Indian, 5.4% Malay, 0.8% Eurasian and 3.1% other race/ethnicity. Most were employed (85.4%), 11.3% unemployed and 3.3% were students. Codeine was the individual drug that most respondents had heard of (30.2%), see Table 1; 437 (43.7%) respondents had heard

Table 1. Number (%) of respondents of an online survey who had heard of and reported life-time misuse of prescription opioids.

Drug Name	Number (%) of respondents who had heard of the drug	Number (%) of respondents who had heard of the drug and reported lifetime misuse
Codeine	302 (30.2%)	23 (7.6%)
Dhasedyl [®] (codeine, ephedrine and promethazine)	175 (17.5%)	16 (9.1%)
Panadeine [®] (codeine and paracetamol)	175 (17.5%)	15 (8.6%)
Tramadol	136 (13.6%)	11 (8.1%)
Procodin [®] (codeine and promethazine)	125 (12.5%)	4 (3.2%)

of any codeine containing product and 459 (45.9%) had heard of any opioid. The reported lifetime misuse of any codeine-containing product was 40 (9.2%) and any prescription opioid was 47 (10.2%). **Conclusion:** This pilot study suggests prescription opioid misuse occurs in Singapore. Further work is needed to understand its true extent, reasons for misuse, and sources of the drugs to help develop public health initiatives to tackle this issue.

References

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72. Acute neurotoxicity of bath salts combining 3,4-methylenedioxypropylvalerone and mephedrone in the rat

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Objective: Synthetic cathinones, beta-keto-amphetamine derivatives, are new psychoactive and stimulant substances with exponentially increasing use in the last 10 years. "Bath salts", often sold legally, contain mixtures of several cathinones such as 3,4-methylenedioxypropylvalerone (MDPV) and mephedrone (4MMC). Toxicity of a combination of two cathinones, mimicking their real use in humans, has never been studied. Our objective was to investigate possible synergy of MDPV/4MMC combination on their stimulant effects in the Sprague-Dawley rat and analyze their mechanisms of interaction. **Methods:** MDPV and 4MMC were synthesized in our laboratory. We studied the effect of a MDPV/4MMC mixture (administered by the intragastric route) on rat locomotor activity in an open-field using video-tapping. Plasma concentrations of MDPV, 4MMC and their 3 major metabolites were measured using liquid chromatography coupled to mass spectrometry high-resolution. Brain monoamine concentrations were determined using high-performance liquid chromatography coupled to fluorometry. For each animal and each time, we calculated the difference between the parameter value at that time