

Perspectives in the treatment of cannabinoid hyperemesis syndrome

Perspectivas en el tratamiento del síndrome de hiperémesis por cannabis

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Cannabinoid hyperemesis syndrome (CHS) is a clinical condition described in 2004 (Allen, de Moore, Heddle & Twartz, 2004) with which healthcare professionals that treat cannabis users (Contreras Narváez et al., 2016; Pélissier, Claudet, Gandia-Mailly, Benyamina & Franchitto, 2016) as well as Hospital Emergency Room (ER) staff who treat its acute effects (Aguilar-Salmerón et al., 2016) are becoming more familiarised. However, its etiological mechanism is still unclear, and is most likely multifactorial (Allen et al., 2014; Contreras Narváez et al., 2016; Pélissier, Claudet, Gandia-Mailly, Benyamina & Franchitto, 2016). In Spain, its prevalence could reach 18% among chronic users (Bruguera, López-Pelayo, Miquel & Balcells-Oliveró, 2016). Nevertheless, it is quite probably even higher, given that many healthcare professionals are still unaware of its existence. In North American states in which marijuana use is legal, furthermore, visits of patients with CHS to ER have doubled in merely one year after the legalisation of this drug (Kim & Monte, 2016).

As is known, the only way for patients to alleviate their symptoms (in addition to ending cannabis use) entails bathing or showering compulsively with hot water, as their symptoms are unyielding to treatment with antiemetics (Contreras Narváez et al., 2016; Pélissier, Claudet, Gandia-Mailly, Benyamina & Franchitto, 2016). Therefore, our contribution presents data on possible effective treatments to mitigate acute effects: the use of haloperidol and capsaicin.

There are 2 published cases that resolved vomiting, nausea and abdominal pain through the administration of haloperidol, both intravenously and orally, in doses of between 2.5 and 5 mg (Hickey, Witsil & Mycyk, 2013; Jones & Abernathy, 2016). The mechanism by which haloperidol reduces the symptoms could be related to blockade of postsynaptic dopamine receptors in the brain, ultimately reducing stimulation of vomiting at the medullary level (Jones & Abernathy, 2016).

On another hand, 9 cases presented the use of capsaicin-based creams, frequently applied as a topical analgesic for articular pain, that reduced or eliminated the symptoms between 30-45 minutes after its application on the torso, with neither local nor systemic side effects (Lapoint, 2014a; Lapoint, 2014b; Biary, Lapoint, Nelson, Hoffman & Howland, 2014; Román, Llorens & Burillo-Putze, in press). Its mechanism of action could be related with the capsaicin receptor, the *Transient Receptor Potential Vanilloid 1* (TRPV1), for its role in the transmission of pain (Carnevale & Rohacs, 2016). Recently, healthy volunteers have described improvement of esophageal peristalsis after the administration of capsaicin (Yi, et al., 2016). On an experimental level, TRPV1 may also be activated at temperatures above 42°C, wherefore the patients' use of very hot water could act this way.

Though clinical experience is still limited, these two drugs seem to be efficient and, a priori, have a plausible physiopathological base, to be explored through clinical trials (Biary, Lapoint, Nelson, Hoffman & Howland, 2014).

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