



Letter to the Editor

Cannabis for restless legs syndrome: a report of six patients



To the Editor:

Restless legs syndrome (RLS) is a chronic and sometimes severe sensorimotor disorder of still unclear pathophysiology [1]. Usually symptoms respond well to dopamine agonists (DA), opiates, or anticonvulsants, used either alone or in combination. However, a subset of patients remains refractory to medical therapy, and serious side effects such as augmentation and impulse control disorder have been observed with DA. We present six patients' spontaneous reports of a remarkable and total remission of RLS symptoms following cannabis use.

These patients had very severe RLS and were regularly followed up for treatment adjustment. All of the patients complained of poor efficacy and/or poor tolerance to their current RLS medication (Table 1). All were previously treated with DA, and two of them (patients 2 and 3) were still taking DA, although both patients reported binge eating and compulsive shopping. Clonazepam was added to rotigotine in patient 2 without further improvement, and patient 3 was lost on follow up. Dopamine agonists were discontinued because of augmentation in patient 1 and because of inefficacy and/or intolerance in patients 4, 5, and 6. On follow-up, patient 1 reported 70% relief after gabapentin initiation, and patient 6

reported 50% relief with a combination of gabapentin and clonazepam. Patients 4 and 5 experienced poor tolerance to oxycodone and tramadol, respectively. No further therapeutic options were available for both of them.

All patients spontaneously reported cannabis use and total relief of RLS symptoms as well as complete improvement of sleep quality after occasional and recreational marijuana smoking (patients 1–5) or sublingual administration of cannabidiol (patient 6). Because of nausea, patient 2 restricted marijuana smoking to periods with symptom severity exacerbation.

To our knowledge, this is the first report on the efficacy of cannabis in RLS. Although the antinociceptive effects of cannabis are widely recognized, concerns about schizoaffective side effects have prevented the widespread use and acceptance of this drug [2]. Notably, a recent review on the efficacy of medical marijuana in several neurologic conditions showed that the risk of serious adverse psychopathologic effects was nearly 1% [3]. This is far from the estimated 20.7% of patients with RLS who develop impulse control disorders while taking DA [4]. The potential benefit of cannabis use in RLS is presently unknown. In our patients, and compared with previous treatment trials for their RLS, occasional cannabis use was described to be the most effective and the best

Table 1
Demographics of patients with restless legs syndrome (RLS).

Patient no.	Age (y)	Gender	Medical history	RLS family history	Disease duration (y)	International RLS rating scale	Ferritin (ng/mL)	Estimated percentage of relief after cannabis use	Previous RLS treatment	Current RLS treatment
1	44	M	None	Yes	8	33	144	100%	Rotigotine, pramipexole	Gabapentin
2	65	F	Pituitary adenoma	Yes	10	32	112	100%	Levodopa, ropinirole, pramipexole, gabapentin, pregabalin, carbamazepine	Rotigotine and clonazepam
3	33	F	Asthma, obsessive-compulsive disorder	No	10	35	–	100%	Pramipexole	Ropinirole
4	40	F	Diabetes	No	14	37	208	100%	Ropinirole, rotigotine, pramipexole, pregabalin, gabapentin, clonazepam, duloxetine, amitriptyline, paracetamol codeine, tramadol, carbamazepine	Oxycodone
5	39	M	Depression	Yes	23	33	500	100%	Ropinirole, pramipexole, rotigotine, pregabalin, tramadol, paracetamol codeine	Tramadol
6	38	F	Anxiety	Yes	5	34	323	100%	Ropinirole	Gabapentin and clonazepam

F, female; M, male.

tolerated. Whether this is related to the unique pharmacologic profile of the drug is currently unknown, but cannabinoids have been found to exert their analgesic effects by an action in the brain via descending modulation, by a direct spinal action, and/or by an action on the peripheral nerve, as well as by regulating the neuro-immune interactions that mediate inflammatory hyperalgesia [5].

The limitations of the present report relate mostly to patients' subjective evaluation of the benefit of cannabis use, which may also be distorted by the psychoactive properties of the drug. Robust clinical trials are required to test the adequate profile of the effectiveness and safety of cannabinoids in RLS.

Conflict of interest

None.

The ICMJE Uniform Disclosure Form for Potential Conflicts of Interest associated with this article can be viewed by clicking on the following link: <http://dx.doi.org/10.1016/j.sleep.2017.04.019>.

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