

Cannabidiol in the Treatment of Irritable Bowel Syndrome

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Dear Editor,

Irritable bowel syndrome (IBS) is a functional bowel disorder with abdominal pain or discomfort associated with periods of abdominal bloating, pain, diarrhea, and constipation.¹

As the first treatment option, nonpharmacological measures are presented, namely: cognitive-behavioral therapy, physical exercise, nutritional changes, inclusion of probiotics and soluble fiber in the diet, including FODMAP-restricted (oligosaccharides, disaccharides, monosaccharides, and fermentable polyols) diet. FODMAP are short-chain carbohydrates, little absorbed in the bowel, where they are osmotically active and quickly fermented, aggravating the symptoms in case of IBS.^{2,3}

In the pharmacological area, they include antispasmodic, laxative, antidiarrheal drugs, tricyclic antidepressants and serotonin reuptake inhibitors, antibiotics, analgesics, and anti-inflammatory drugs.⁴

Often, patients with IBS show psychological symptoms or psychiatric disorders.⁵

Cannabidiol (CBD) and its interactive profile in the endocannabinoid system may be a new option for treatment of IBS.

The strongest evidence of clinical deficiency of endocannabinoid (CED) is migraine, fibromyalgia, and irritable bowel syndrome (IBS).⁶

Endogenous cannabinoids (endocannabinoids) have shown a regulatory role in the inflammation and the permeability of the mucosa of the gastrointestinal tract. All components of the endocannabinoid system can be found in the gastrointestinal tract: cannabinoid CB1 receptors mainly in enteric cholinergic neurons, where they inhibit neuronal hyperactivity, thus relieving strong intestinal contractions and secretions. They can also be found in the enterocytes and

are probably involved in the regulation of mucosa permeability and wound healing. Unlike CB1, CB2 receptors are rarely found in the enteric neurons.⁷

Activation of cannabinoid receptors (CB1) and (CB2) reduces motility, limits the secretion, and decreases hypersensitivity in the bowel.⁸

We report two cases of long-lasting improvement of IBS with cannabidiol and without the traditional drugs used before.

A female patient, 45 years old: serious form of IBS, depression, joint pain, excessive daytime sleepiness (EDS).

Previous treatments: maximum tolerated doses of gabapentin, pregabalin, pinaverium, mebeverine, nortriptyline, amitriptyline, bupropion, desvenlafaxine, vortioxetine, duloxetine, methylfolate, methylphenidate, fluoxetine, modafinil, quetiapine, sulpiride, levosulpiride, etc.

Even with sulpiride 200 mg/day, pregabalin 100 mg/day and modafinil 400 mg/day, she had only a slight improvement of IBS and EDS.

She started treatment with Cannabidiol at 0.3% THC at the beginning of 2020. Eighteen months later, she has very few episodes of diarrhea and almost no joint pain. Current medication: 25 mg CBD at 0.3% THC. She reports that “she hasn't felt so well for years.”

A female patient, 22 years old: IBS serious form, the patient reported ‘going out wearing diapers sometimes’, anxiety and hyperhidrosis.

Previous treatments: clomipramine, sertraline, quetiapine, clonazepam, venlafaxine, zolpidem, duloxetine, pinaverium, mebeverine, antiallergics, antibiotics, and corticosteroids.

She started treatment with CBD at 0.3% THC at the beginning of 2020. She suspended duloxetine, quetiapine, zolpidem, and clonazepam.

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At the end of 2020, she was taking CBD only at a dose of 25 mg 3 times daily. She did not have any manifestation of IBS anymore, except on a few days in the premenstrual period.

Patients with complex sets of symptoms tend to receive complex, expensive, hard treatments, where drug interactions and side effects are probable.

These two cases showed almost complete and long-lasting improvement of IBS even without the previous polymedication.

We hope they serve as incentive for research with a higher number of patients and non-naturalistic design.

Conflict of Interests

The authors have no conflict of interests to declare.

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