

Amyotrophic Lateral Sclerosis and Cannabidiol

Esclerose Lateral Amiotrófica e Canabidiol

Esclerosis lateral amiotrófica y cannabidiol

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OPINION

Amyotrophic Lateral Sclerosis can be defined as a progressive, degenerative and inexorable disease that leads to depletion of upper and lower motor neurons. With the evolution of the disease, the patients present several damages regarding their daily activities. Muscle weakness is undoubtedly the leading cause of functional disability, swallowing, speech, and breathing problems.

The only drug approved to contain the natural history disease is Riluzole (a drug that slows dependence on mechanical ventilation for an average of 3-6 months). Other proposed treatments, such as intramuscular use of Methylcobalamin, oral use of l-serine at high doses, and Tauroursodeoxycholic acid up to 2 grams/day, among

others, have a certain link with the physiopathology structure of the disease.

Currently, there have been studies that seek to associate the use of medicinal cannabis (Cannabidiol - CBD) with Amyotrophic Lateral Sclerosis, as these components have antioxidant, anti-inflammatory, and neuroprotective characteristics. Authors believe that its use could lead to relief in neuronal death. We emphasize, with all our expertise, not only for the great care of this clientele, but based on current scientific articles, that CBD alone or associated with THC (tetrahydrocannabinol) is not a disease-modifying drug, but it can be used (with parsimony) in some associated clinical situations (spasticity, sleep disturbances, anxiety, depression, and pain).

Although some media information brings hope to patients, it also generates psychological distress, as many believe in solving the problem altogether. Rare diseases groups are extremely beneficial by sharing experiences, helping families, and especially in creating a positive and fierce current of disease control. It is worth mentioning that, every drug, whether controlled or not, ought to be first discussed with the specialist prescribing physician.

Some colleagues or scholars on the subject (CBD) will questions about the binding of THC to the CB1 receptor in glutamate receptor inhibition activity in the remaining motor neurons, and even through the anterograde and retrograde axoplasmic flows. It is a fact that glutamate

(neurotransmitter) in excess causes damage to cells of the central nervous system and contributes to neurodegeneration. Once again we are aware of these mechanisms, however current studies need more emphasis to advertise cannabidiol as a disease-modifying drug.

We will be asked again about studies that conclude that CBD when used in genetically modified animal models (rat) has proved to be a neuroprotective drug. We ought to call attention to the fact that results in animals may not translate success when research is directed to humans.

We believe that further experiments may conclude that CBD is indeed a disease-modifying drug. However, at the present time we cannot validate such statement.

Can CBD be prescribed or not for patients with ALS? Certainly, as long as the prescriber knows exactly what its purpose is in the prescription and it is not considered a disease-modifying drug. Many of us have already prescribed or will prescribe CBD with or without THC in ALS patients; always aware, obviously, of our goals.