Cannabinoids and epilepsy — Introduction☆

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Over the past five years, the lay press and families of children with catastrophic epilepsies popularized the use of cannabis and cannabinoids to treat seizures [1]. Many state legislatures have responded to the pressure from lay groups and have legalized medical cannabis, which is now available to a majority of people in the United States. Patients throughout the world are also obtaining and using cannabinoids to treat their epilepsy. There is an enormous dissociation between the widespread use of cannabis-based therapies to treat diverse epilepsies and our understanding about the efficacy and safety of different cannabinoids in treating different epilepsy syndromes.

Ware and Ziemianski in their 2015 publication, *Medical Education on Cannabis and Cannabinoids: Perspectives, Challenges and Opportunities*, proposed a curriculum to cover the spectrum of cannabis-related issues to allow providers to engage in meaningful discussions with patients [2]. This curriculum should address a rapidly changing scientific and regulatory landscape surrounding the medical use of cannabis and cannabinoids, which has impacted providers who have little or no formal education about medical use of cannabis and cannabinoids.

Epilepsy and Behavior is hosting this special issue on *Cannabinoids and Epilepsy*. The goal of these articles is to evaluate the concerns and gaps in cannabinoid knowledge and medical education, and to create a curriculum as a first step in building a broader *Education Roadmap*. Towards this end, this special issue seeks to provide an overview on this subject for general neurologists and epileptologists, including historical aspects of cannabis use for epilepsy, overview of cannabis botany, general aspects of endocannabinoid system as it pertains to epilepsy, pharmacology of cannabinoids, available anecdotal and clinical trial data of cannabinoid use for the treatment of epilepsy, safety data, discussion of possible effects of cannabinoids on the brain including neuroimaging data and, finally, the legal aspects of cannabis production, distribution and use for the treatment of epilepsy. We hope these articles help stimulate greater understanding and more importantly, stimulate more studies to scientifically define the potential benefits and harms of cannabis-based therapies for epilepsy.

References

[1] Maa E, Figi P. The case for medical marijuana in epilepsy. Epilepsia 2014;55:783–6.
[2] Ware MA, Ziemianski D. Medical education on cannabis and cannabinoids: perspectives, challenges, and opportunities. Clin Pharmacol Ther 2015;97:548–50.