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Cannabinoids for epilepsy.

Gloss D[1], Vickrey B.

Author information

Abstract

BACKGROUND: Marijuana appears to have anti-epileptic effects in animals. It is not currently known if it is effective in patients with epilepsy. Some states in the United States of America have explicitly approved its use for epilepsy.

OBJECTIVES: To assess the efficacy and safety of cannabinoids when used as monotherapy or add-on treatment for people with epilepsy.

SEARCH METHODS: We searched the Cochrane Epilepsy Group Specialized Register (9 September 2013), Cochrane Central Register of Controlled Trials (CENTRAL) in The Cochrane Library (2013, Issue 8), MEDLINE (Ovid) (9 September 2013), ISI Web of Knowledge (9 September 2013), CINAHL (EBSCOhost) (9 September 2013), and ClinicalTrials.gov (9 September 2013). In addition, we included studies we personally knew about that were not found by the searches, as well as searched the references in the identified studies.

SELECTION CRITERIA: Randomized controlled trials (RCTs) whether blinded or not.

DATA COLLECTION AND ANALYSIS: Two authors independently selected trials for inclusion and extracted the data. The primary outcome investigated was seizure freedom at one year or more, or three times the longest interseizure interval. Secondary outcomes included responder rate at six months or more, objective quality of life data, and adverse events.

MAIN RESULTS: We found four randomized trial reports that included a total of 48 patients, each of which used cannabidiol as the treatment agent. One report was an abstract and another was a letter to the editor. Anti-epileptic drugs were continued in all studies. Details of randomisation were not included in any study report. There was no investigation of whether the control and treatment participant groups were the same or different. All the reports were low quality.The four reports only answered the secondary outcome about adverse effects. None of the patients in the treatment groups suffered adverse effects.

AUTHORS' CONCLUSIONS: No reliable conclusions can be drawn at present regarding the efficacy of cannabinoids as a treatment for epilepsy. The dose of 200 to 300 mg daily of cannabidiol was safely administered to small numbers of patients generally for short periods of time, and so the safety of long term cannabidiol treatment cannot be reliably assessed.