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05. Efficacy, tolerability and safety of cannabinoids for management of pain in adult patients with multiple sclerosis: A systematic review and meta-analysis

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Objective: Conduction of a systematic review and meta-analysis to determine the clinical efficacy, tolerability and safety of cannabinoids in adults patients with multiple sclerosis and intractable pain.
Methods: Our review was performed according to the PRISMA guidelines. Pubmed, Scopus, Cochrane Library databases and ClinicalTrials.gov, EudraCT registries were searched for double-blind RCTs, involving adults with any form of multiple sclerosis and intractable pain. We included studies with cannabinoids of any type, dose or route of administration versus any control group. Risk of bias was assessed with Cochrane Risk of Bias 2 tool and certainty of evidence was rated according to GRADE approach. Review Manager 5.4 computer program was used to conduct our meta-analysis.
Results: 6 trials, including 798 patients, were analyzed. Cannabinoids were superior to placebo for reducing pain intensity with statistical significance [MD = –0.48 (–0.88 to –0.08)]. Instead, overall withdrawals and frequency of adverse events showed a statistically significant increase in the cannabinoid groups [RR = 1.63, (1.05 to 2.52), NNTH = 19 (8 to 200) and RR = 1.32 (1.12 to 1.55), NNTH = 6 (3 to 16) respectively]. No statistical significant difference has been found on serious adverse events frequency. Short-term trials with small size and studies investigating THC/CBD spray (up to 120 mg/120 mg per day), showed a significant reduction in pain (0.90 and 0.86 points on NRS 0–10 scale respectively).
Conclusions: Cannabinoids have never been administered as monotherapy and always administered by titration to treat intractable pain of various types in patients with multiple sclerosis. Our findings were based on a small number of trials and patients. Therefore certainty of evidence has been rated as moderate. Oromucosal spray THC/CBD (up to 120mg/120mg daily) is most likely to be used, in patients with multiple sclerosis and pain resistant to conventional analgesics, initially for short term treatment in future clinical practice.

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