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LETTER TO THE EDITOR

Use of Δ^9-tetrahydrocannabinol in the treatment of spasticity in spinal cord injury patients

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We read this interesting article and appreciate the effort of the authors for exploring the potential of Δ^9-tetrahydrocannabinol (THC) in the treatment of spasticity in spinal cord injury (SCI) patients.[1] The authors have highlighted the difficulty in treating spasticity in SCI patients with the currently available medications, making the point for such trials and researches on this subject. The paper outlines the study objectives as to assess the efficacy and side effects of THC in SCI patients. However, the authors did not compare the results of the phase 3 study, which was a randomized controlled trial (RCT). The reason given for this by the authors is that there was a major difference in baseline scores on the summated spasticity score. This could be due to the bias in patient selection (such as wide range of age group from 19 to 73 years) and randomization. The methodology of patient selection, blinding and randomization are not detailed in the paper.

The study involved both open labelled study (phases 1 and 2, but without a control group) and an RCT. If the authors had given RCT results of phase 3, then it would have been a stronger (level 1) evidence to prove or disprove the efficacy and adverse effects of THC in the treatment of spasticity in SCI. Instead, the authors just used the placebo group of the RCT (phase 3 study) for comparison with the results of the phase 1 study (open labelled study), making the evidence provided as level 3.

Factors such as patients' therapy or exercise programme, bowel care, bladder care, urine infections in the study periods or any other noxious stimuli are well known to affect spasticity. These confounding variables that may affect the results of the study should have been included in the multivariate analysis to make it more credible. Also the cost–benefit analysis should have been included to assess the cost effectiveness of THC.

Studies on the efficacy of cannabis or THC in SCI patients are very limited to date. There are a few mixed reports on this.[2,3] These studies are small size studies with poor design. The Cochrane review on pharmacological interventions for spasticity following spinal cord injury prepared and published by Cochrane Collaboration in 2007 highlights the difficulties of spasticity management in SCI,the poor quality of the studies published so far on this subject and also the need for further quality trials.[4]

The authors in this paper have succeeded in exploring the benefits and possible adverse effects of THC use in SCI and more importantly highlight the need for further studies comparing THC with the currently available spasmolytic medications. So the overall attempt by the authors is laudable, but the outcome of the study does not add much to our current practice. Therefore, proper RCTs comparing with the currently used medications and analysing the cost–benefit are needed before making any conclusion. We hope the authors continue the study to add to our present knowledge regarding this important topic.

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