UK Medical Cannabis registry: an analysis of clinical outcomes of medicinal cannabis therapy for chronic pain conditions

Harris M. et al. Expert Review of Clinical Pharmacology. 2022; 15:4, 473-485.

Introduction

As many as half of the UK population is affected by pain lasting longer than 3 months, defined as **chronic pain**, which has a significant impact on quality of life, mental health and ability to work.

Regardless of aetiology, there are **limited pharmacological treatments** for managing pain symptoms, and many clinicians resort to using analgesics that have little evidence for long-term use. To address the treatment gap in chronic pain, novel therapeutics must be explored.

The endocannabinoid system has an established role in pain pathways, and observational studies have linked **cannabis-based medicine product (CMBP) therapy** with pain relief and improvement in quality of life.

This study reports the efficacy and safety findings from a **case series of chronic pain patients treated with CMBPs**. These observational longitudinal findings are from the UK Medical Cannabis Registry (UKMCR), where prospective patient data was collected to explore the benefit-risk profile of CMBPs.

Aim of the study

To explore pain-specific, general health-related quality of life (HRQoL), and safety outcomes of chronic pain patients prescribed cannabis-based medicinal products (CBMPs).

Methods & Materials

A case series of **190 adult patients treated with CBMPs for primary chronic pain**, defined as pain lasting more than 3 months and including cancer pain, complex regional pain syndrome, Ehlers-Danlos syndrome, fibromyalgia, neuropathic pain, and undefined aetiology. Patients used gold-standard questionnaires for chronic pain to indicate changes in:

- **Pain-specific outcomes:** Brief Pain Inventory short-form (BPI), Short-form McGill Pain Questionnaire-2 (SF-MPQ-2) and Visual Analogue Scale-Pain (VAS)
- **Health-related quality of life outcomes:** General Anxiety Disorder-7 (GAD-7), Sleep Quality Scale (SQS), and EQ-5D-5L

Patients also reported adverse events and changes in daily oral morphine equivalent doses.

Primary Outcomes

Primary outcomes were changes from baseline at 1, 3 and 6 months in patient-reported outcome measures for pain-specific outcomes and health-related quality of life (HRQoL).

Results

All pain-specific outcomes were significantly improved at all time points from baseline; BPI, SF-MPQ-2, and VAS measures ($P<0.050$).

Figure 1 shows the baseline vs 6-month comparisons for pain-specific outcomes, where all measures showed significant improvement (P<0.001). Baseline comparisons were independent to include patients with missing follow-ups.

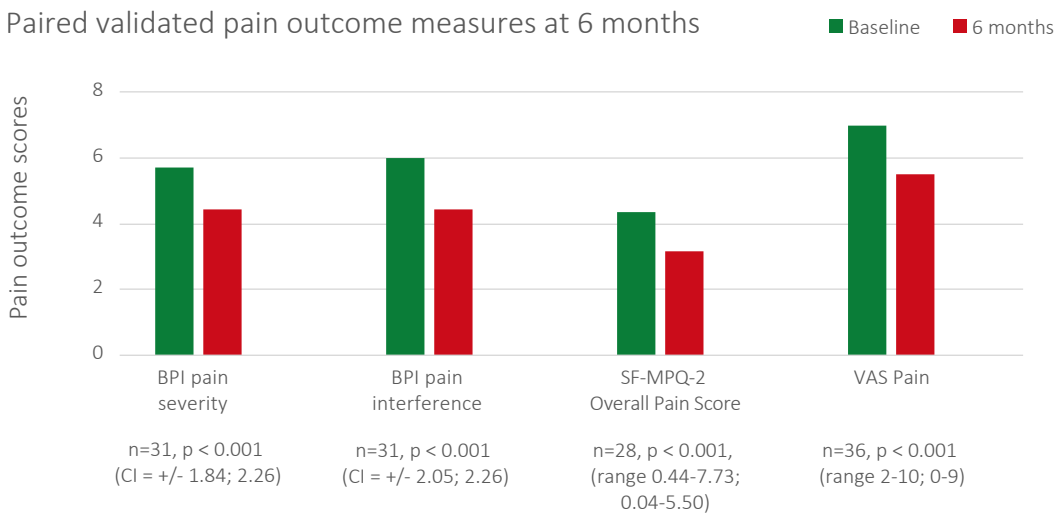

Chart adapted from Table 4; Harris et al 2022[1]

There were statistically significant improvements at all time points in pain and discomfort, anxiety and depression, sleep quality scale, quality of life index values and ability to complete usual activities ($p < 0.050$). The impact on the remaining EQ-5D-5L subscores of mobility, self-care and anxiety and depression varied in significance across time points.

Patients treated with CMBPs reported statistically significant median oral morphine equivalent reductions of 79% and 56% at 3 and 6 months, respectively ($p < 0.050$).

60.53% of respondents experienced no adverse events, and of those reported most were mild to moderate in severity, suggesting CBMP are well tolerated.

Discussion

This case series of chronic pain patients observed statistically significant improvements across a number of important outcomes in chronic pain, a condition where patients commonly face mild to severe impact on their quality of life due to a lack of treatment options.

While this study cannot demonstrate a causal relationship, these observational findings suggest that **CMBPs have therapeutic potential for managing chronic pain.**

Declaration of interest
The following authors have shareholdings and/or carry out work at Sapphire Medical Clinics and or Curaleaf International: MH Sodergren, S Erridge, C Holvey, R Coomber, A Usmani, M Sajad, J Hoare, JJ Rucker, and M Platt.

References

Harris, M., Erridge, S., Ergisi, M., Nimalan, D., Kawka, M., Salazar, O., Ali, R., Loupasaki, K., Holvey, C., Coomber, R. and Usmani, A., 2022. UK Medical Cannabis registry: an analysis of clinical outcomes of medicinal cannabis therapy for chronic pain conditions. Expert review of clinical pharmacology, 15:4, 473-485.

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