THE APPLICATION OF CANNABINOIDS AS COMPLEMENTARY AND ALTERNATIVE MULTIMODAL THERAPEUTICS: A CASE STUDY REVIEW OF PATIENTS PRESENTING WITH COMPLEX SYMPTOM CLUSTERS

Dr. Caroline MacCallum, MD, FRCPC, B Sc. Pharm
Vancouver General Hospital

INTRODUCTION / AIM

Neuropathic pain guidelines can be used in the management of complex pain such as central sensitivity (including fibromyalgia, IBS, Chronic fatigue etc.). Frequently, combinations of medications are required for pain control due to poor response with one agent.

These medication combinations can include first line agents including antidepressants with both norepinephrine and serotonin reuptake inhibition such as TCA and SSNRIs (i.e. nortriptyline, duloxetine and venlafaxine) and calcium channel α2-δ Ligands (gabapentin and pregabalin); Second line agents including tramadol and opioids; and finally third line agent including SSRI, other anti-epileptic and cannabinoid medications. The combination of first, second and third line agents can cause additive side effects, most commonly sedation.

A major challenge for patients with complex pain is that they commonly have symptom clusters such may include; pain, nausea, headache, insomnia, anxiety, depression etc. Combinations of medications can be used to manage each individual symptom. Again, these can lead to compounded or additive side effects especial for sedation.

The aim of this review is to describe a group of patients who have reported quality life improvements and reduction in side effect associated with pharmacological agents as a result of the introduction of cannabis as a multimodal therapeutic for complex symptom cluster management and identify any trends in patient outcomes as a result.

METHODS

A case series with active and retrospective chart review of 10 patients who were authorized medical cannabis for the management of complex pain and associated symptom clusters.

RESULTS

From a symptom perspective: 10/10 patients reported improved pain; 6/6 reported improved nausea; 6/6 reported improved spasms; 7/7 reported improved headaches; 10/10 reported improved sleep.

From a disease perspective: 6/6 patients had improved fibromyalgia symptoms, 10/10 improved anxiety/depression, 3/3 improved IBS; 2/2 improved pelvic pain; 4/4 improved migraines.

Most patients described a 2-4 point reduction (out of 10) in their symptom clusters with use of
cannabis. Patients preferred the overall multimodal effects which cannabinoids had on their symptom cluster over an “absolute” point reduction in one specific symptom. They reported greater individual symptom reduction from some prescribed pharmaceuticals for a specific symptom than from cannabis. However, patients reported significant incidence of side effects from pharmaceuticals, but did not report the same for cannabis.

Patients reported a great improvement in quality of life with the use of cannabis as a single multimodal therapy over the combination of individual agents to address symptom clusters.

**DISCUSSION / CONCLUSIONS**

We observed that traditional analgesics such as narcotics resulted in a number of side effects; including sedation, constipation, pruritus, sweating, confusion etc. These side effects often required a counteractive medication. For example –hydroxyzine for pruritus, oxybutynin or clonidine (off labeled use) for sweating etc. These medications, in order to manage side effects of the narcotic, also had additive sedation to the original narcotic medication. This was reported as the most bothersome to patients; impacting their Activities of Daily Living, Instrumental Activities of Daily Living and hence impact on their perceived overall quality of life.

We observed that many patients were on multiple medications, one for each individual symptom, prior to cannabinoid use. Use of cannabinoids allowed patients to reduce their previous doses of medications and even discontinue some medications.

Most patients feel that there symptom clusters are interrelated. For example, when their stress increases, this triggers anxiety and can lead to other symptoms “flaring”. Cannabis, being multimodal, can have a huge impact on this potentially downward spiral.

The impact of the introduction of cannabinoids on patients observed for this report was dramatic, and provides strong support for the further investigation of the impact of cannabinoids; especially sparing the use of polypharmacy to reduce the severity and incidence of side effects.

**OTHER AUTHORS**

Christopher Murray, B.Sc., MAHSR