Cannabis use increasing in older generation?

While marijuana use in American adults over 50 years of age is increasing, research into its usage and effects in this population hasn't kept up. There is a paucity of studies examining usage in older adults with even fewer studies looking at medical marijuana use (MMU) in this group.

A recent review set out to summarize the peer-reviewed published epidemiologic literature on marijuana use in the older adult population (50 years or older), including the prevalence, patterns and correlates of marijuana use. (Lloyd SL, Striley, CW: Marijuana use among adults 50 years or older in the 21st Century. ***Gerontology & Geriatric Medicine*** 2018; 4:1-14.)

The authors found that the greatest increase in marijuana use was observed among those 50 years or older, with those 65 years or older having the greatest increase in use among all older users. Common correlates of marijuana use in this group included being an unmarried male, having multiple chronic diseases, and using other substances such as alcohol, tobacco and other illicit or prescription drugs.

A large portion of adults in this population used marijuana medicinally in contrast to recreational use. Common reasons for MMU include pain, anxiety, loss of appetite or weight loss, depression and insomnia.

Not surprisingly, many baby boomers see marijuana as a potentially safer alternative to conventional therapeutics. A study (Lau N, et al: A safer alternative: Cannabis substitution as harm reduction. ***Drug and Alcohol Review*** 2015; 34:654-659.) determined that older marijuana users perceived it as having less adverse effects, a lower risk of addiction, and better effectiveness for treating medical conditions.

Medical issues and aging

Despite the potential benefits of marijuana use, the negative health outcomes associated with usage in the older population need to be considered by users and potential users.

A review (Hill KP: Medical marijuana for treatment of chronic pain and other medical and psychiatric problems: A clinical review. ***Journal of the American Medical Association*** 2015, 313:2474-2483.) found that only a few conditions have high-quality evidence to support MMU, including chronic pain, neuropathic pain and spasticity due to multiple sclerosis.

Moreover, older adults experience many age-related changes that increase susceptibility to adverse events associated with any drug. Marijuana use can increase the risk of injury among those in the older adult population. The combination of the effects of marijuana, including sedation, and cognitive changes in older marijuana users can have detrimental consequences for older drivers. However, studies that address injuries specifically related to marijuana use are scarce.

The shortage of studies examining marijuana use in the older–and more vulnerable–adult population leaves many questions unanswered. The increased interest and usage in this group requires additional research to avoid negative outcomes.

—**Diane Bracuk**, *CJMC Correspondent*

Commentary **Blake Pearson, MD** Sarnia, Ont.

ALTHOUGH RESEARCH SUGGESTS that patients over 50 [years of age] represent one of the fastest growing demographics using cannabinoid-based medicines (CBM), little is known about their patterns of use, whether there are specific therapeutic opportunities unique to this population or if seniors are at greater risk for certain adverse events.

Our community has a high proportion of seniors, making it an ideal environment to examine the impact of medical cannabis on perception of pain, sleep, quality of life, and prescription drug use in patients over age 50. The prospective multi-site observational cohort study we are conducting is being administered at five medical offices in Ontario and two in B.C. (with additional sites in New Brunswick to follow shortly), and has recruited over 120 participants to date.

Some physicians will contend that there isn't any evidence for CBM, but this is untrue. There is significant quality evidence for the general adult use of CBM for a number of common conditions, most notably chronic pain, spasticity and chemo-induced nausea and vomiting.

Since the chance of acquiring a condition that is amenable to CBM increases considerably as one ages, this study seeks to deepen our understanding of CBM as a treatment among older adults.

One of the most unique benefits of CBM is its multi-modality. This is especially exciting as a treatment option for seniors since the number of drugs being prescribed to seniors is the number one cause of hospitalizations related to adverse drug reactions.

In my practice, we're seeing encouraging results in terms of reduced prescription drug use: Some of our patients are coming off the opioids they're taking for chronic pain, the zopiclone they're taking for sleep, and possibly pregabalin for fibromyalgia.

CBMs also have an excellent safety profile compared to most other analgesic medications. Unlike opioids or sleep medications, there is no known lethal dose and there has never been a death from cannabis overdose. Like any medication, however, there are certain considerations that need to be assessed when treating elderly patients.

Risk of falling is one of the biggest concerns in this population. There's a lot of buzz about dizziness as a potential adverse effect. This comes down to a lack of understanding about the differences between THC and CBD. When treating seniors, it is important to use CBD-dominant formulations to avoid the dizziness or fatigue caused by THC that could lead to falls.

Despite increased interest in cannabinoids as a treatment option, there are still stigmas and misconceptions among this patient group and the practitioners who treat them. My hope is that this study can add further context to the discussion, and that more practitioners will consider CBM as a viable therapeutic modality and powerful tool in reducing polypharmacy among their older patients.

Enrollment is ongoing. For more information, email me at blake.pearson@greenlymed.com

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When is it appropriate to consider cannabis as a replacement therapy in older people?

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More Canadian physicians are becoming open to prescribing medical cannabis for their patients. Nonetheless many feel uncomfortable with the lack of data regarding indications, dosages and safety properties. This is especially true when it comes to older patients, who are more prone to adverse drug effects than younger patients.

Many older patients are now requesting medical cannabis for conditions such as chronic pain, but the lack of valid clinical data on older patients makes physicians uncertain about whether or not to prescribe it for them. As a result, cannabis could be inappropriately prescribed for this group, and so is it right or wrong to use cannabis as an alternative therapy in older patients?

"The change in Quebec's legislation authorizing cannabis for recreational use led to an increasing number of patients consulting me about its therapeutic properties to treat their pain," said Dr. Olivier Beauchet, a professor of geriatric medicine at McGill University in Montreal, during an online interview with the CANADIAN JOURNAL OF MEDICAL CANNABIS. "This sudden and very strong interest led me to conduct this systematic mini-review of the scientific literature."

Using an English and French systematic Medline [Pubmed] search from Jan. 1, 2001 to Oct. 15, 2018, this review examined evidence on medical cannabis use in older patients. A total of 451 abstracts were identified and full relevant articles were retrieved and analyzed (Beauchet O, Kaufman J: Medical cannabis use in older patients: Update on medical knowledge. ***Maturitas*** 2018; 10:010).

Guidelines for medical cannabis use in general population

It has been established that prescription cannabis is not appropriate for all patients. This includes anyone under the age of 25 years with a current or past substance use disorder, a personal or family history of mental illness, or patients with chronic lung, cardiovascular, and/or kidney disease, or those who are pregnant or breastfeeding.

Determining a safe dose is a challenge for physicians. Recommendations are to proceed cautiously with the dosage, following the rule "start low and go slow," until attaining a dose that has an effect on symptoms. Physicians are also advised to follow up the patient every three months to monitor them for complications or abuse, misuse or diversion. There are no specific guidelines for older patients.

There are many reasons why older adults may have an increased vulnerability to adverse effects to cannabis. Age-related decline in organ function and changes in pharmacokinetic and pharmacodynamic parameters are factors. In addition, the high prevalence of polypharmacy and possible medication interactions complicate the prescription of cannabis to older patients. Moreover, the sedation-like neurological side-effects of cannabis may expose older adults to an increased risk of falls.

Although drug interactions are a major concern for physicians treating older patients, few studies have examined this issue. There is, however, a high suspicion of drug interactions because cannabinoids are metabolized by CYP3A4, CYP2C9 and CYP2C19 enzymes. (Lindsay, 2012) These enzymes are involved in the metabolism of numerous drugs such as warfarin and the SSRIs, which are often used by older adults.

"We know that most of the elderly are taking lots of drugs," Dr. Beauchet said.

"That increases the risk of drug interactions. Moreover, taking cannabis with multiple other drugs can lead the various substances to "compete" for enzyme binding sites, decreasing the efficacy of drug metabolism in the elderly. As such, interactions are possible."

"The change in Quebec's legislation authorizing cannabis for recreational use led to an increasing number of patients consulting me about its therapeutic properties to treat their pain"

Uncertainty about the different cannabis streams

Another potential problem is confusion between medical and recreational use. Although it has been proven that cannabis for recreational use can produce adverse psychiatric effects and can be addictive, legalization will likely decrease the perception of risk in the general population, including older adults.

Dr. Olivier Beauchet

"This new approach to cannabis as a drug for pleasure has led some people to believe that it is ultimately safe, "Dr. Beauchet noted. "This is erroneous and can be harmful in an aging population group who may be more vulnerable to its adverse effects anyway."

There is a growing body of data that shows the positive effects of medical cannabis use, but studies have had mixed results. Many of these studies have had small samples and there are few randomized controlled trials. This lack of evidence on the positive clinical effects of medical cannabis use is especially marked for older patients, few of whom have been examined. As a result, there is little information to guide medical cannabis prescription in this group of patients. There is a need for well-controlled clinical trials to establish therapeutic efficacy, dose ranges and safety in older patients, he noted.

According to Dr. Beauchet, this will not happen overnight. "It will take months, possibly even a few years of public information and awareness before anyone understands this consumption and the risks associated with it."

—**Diane Bracuk**, *CJMC Correspondent*