

# Challenging Patient Cases: Clinical vs. Science of Cannabis Chemovars

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# Presenter Disclosure

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I have the following Relationships with commercial interests:

- Advisory Board: Emerald Health Botanicals, Shoppers Drug Mart, Vitality Biopharma, MedReleaf, True Leaf, Strainprint
- Speakers Bureau: Spectrum Cannabis, Shoppers Drug Mart, Compass Cannabis Clinics
- Educational Grants: Canopy, Emerald
- Medical Advisor: Greenleaf Medical Clinic, Translational Life Sciences, Canopy Growth, MD Briefcase
- Not for Profits: Arthritis Society (cannabis benefit plan) , Canadian AIDS society (guidelines)
- Expense reimbursement: for seminars when presenting

# Mitigating Potential Bias

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- No commercial entity had any involvement in the development of educational materials.
- The steering committee had Full control over the program development.
- Needs assessment, past education evaluations, and supporting documentation were used by the steering committee to identify key topics content and select speakers.
- All faculty members completed the University of Calgary CME & Professional Development disclosure form and disclosed any identifiable potential conflicts to participants in accordance with the CFPC standards of COI and transparency to learners.
- Generic names will be used.
- Potential faculty conflicts of interest were reviewed and addressed by the steering committee

# Case 1: THC / CBD Non responder?

- 50 yo male
- RFR: insomnia
- PmHx: gout
- Hx: tried zopiclone, benzo, exercise, CBT etc
- Cannabis Plan : No response from CBD or THC. Has tried dried product (vap/ smoked), oil, cookies, gummy bears, “sativa” and “indica”; low and high potency; adequate amounts.
- Question: hypermetabolizer? Endocannabinoid system receptor variant?

## Case 2: THCA causing intoxication?

- 40 yo F
- PmHx: TMJ, migraines, concussion, chronic shoulder pain
- Meds: previously tried TCA, opioids etc.
- Cannabis Plan : using THC oil and vap multiple times a day. ~ 1g/day
  - Tried 5mg THCA (labe said ~ 10% conversion to THC)
  - Euphoric, paranoid, anxious
- Question: is this THCA? Or terpenes? Even if it decarboxylated 100% to THC that would only be 5mg and she has tolerance.

## Case 3: THCA only responder ?

- 50 F
- RFR: Chronic Fatigue syndrome
- PMHx: FM, IBS, irritable larynx syndrome
- Meds: tried gabapentin, TCA, SNRI, opioids, methadone
- Cannabis Plan: tried 12 different products from more than 5 different LP including THC “indica” or “sativa”, CBD, oils, dried product with a variety of terpene profiles. No response from any. Then tried THCA oil, great response for 3 months, now no response.
- Question: How can you have response and then loose it? Why did THCA give response but not CBD or THC?

## Case 4: CBD for energy?

- 40 F
- RFR: lyme
- PMHx: pelvic pain, fibromyalgia
- Meds: tramadol, T3, naproxen
- Cannabis Plan: Initially tried Avidel CBD oil for sleep, but was waking after 4 hours of sleep – feeling refreshed but very alert and could not get back to sleep. Used during daytime with improvement in energy. Now using THC for sleep instead.
- Question: is this CBD or terpenes causing stimulation?

## Case 5: CBD causing sedation?

- 40 M
- RFR: anxiety and sleep
- PMHx: none
- Meds: failed SSRI, zopiclone, benzo
- Cannabis: CBD causing fatigue during daytime, can only use at nighttime for sleep.
- Question: Is it CBD causing fatigue or is it myrcene?



## Case 7: THC “Sativa” for sleep

- 50 F
- PMHx: OA spine, hips, knees
- Meds: previously tried injections, Tylenol, NSAID, opioids
- Cannabis: Cannot vaporize “indica” THC for sleep, gets too anxious. Can only use “sativa” for sleep
- Question: Is this due to myrcene vs. pimonene terpenes? And not THC related ?

## Case 6: Chemovar tolerance, not dose tolerance?

- 30 M
- RFR: PTSD
- PMHx: anxiety
- Meds: tried benzo, clonidine, propranolol, SSRIs
- Cannabis: currently using 2-3g/day. Uses 3 different THC chemovars (with similar profiles of THC %) which he rotates every few weeks. He finds that rotating help to maintain response and prevents him from increase total amount used/dose
- Question: Does tolerance involve more than just THC? Terpenes?

## Case 8: nabiximol causing euphoria in Rec User

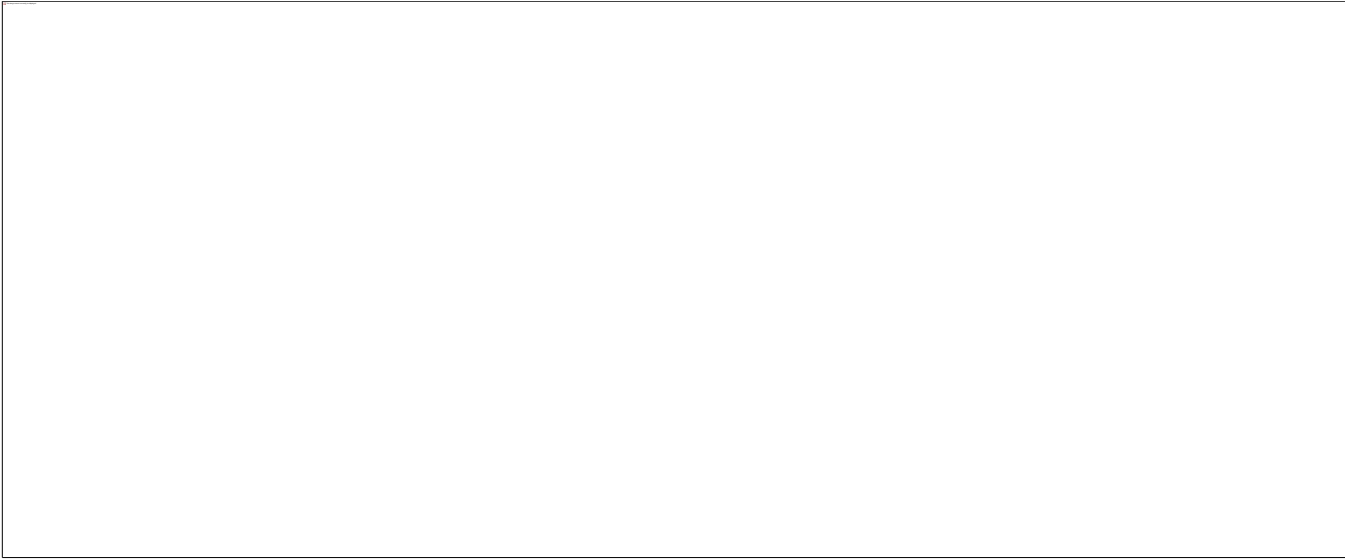
- 35 M, “Friend of a friend of a friend” (not my patient)
- Rec user, likely self medicating for depression
- using cannabis for > 10 years, has grow licence.
- Approx 4-5 g/day, using “indica” THC mainly.
- Was given 5 sprays of Nabiximols ( 5x 2.5 = 12.5mg THC) by a friend and was +++ euphoria, “like being on LSD”
- Question- Could this be CBD since he likely was using THC?

# Case 9: Nabilone and Cannabis

- 25 yo F
- RFR refractory pelvic pain
- PMhx: IBS, IC, PTSD, migraines
- Meds: tried gaba, TCA, SSRI, lidocaine, intranasal ketamine, low dose naltrexone (LDN), nabilone 8-10mg/day
- Cannabis:
  - Using > 3 g cannabis/day. As we tapered down nabilone she would get euphoric with very small amount of cannabis. Now on < 1g/day and off nabilone.
- Question: Does nabilone increase tolerance to THC? However, some physicians have found the opposite - using nabilone to reduce total daily dose of cannabis required.

# Case 10: Taming THC?

- Husband
  - CBD oil day
  - Only 1-2 inhalations of THC HS as he is very sensitive to THC
  - CBD for day, but if using THC for day he must add 1:1 with CBD.
  - If he had THC side effects, he said that taking CBD or smelling black pepper helps
- Wife
  - inhales THC multiple times a day and takes THC oil. ++ more than husband.
  - She also mentions that she drinks ++ lemon water daily
- Question: Does the lemon water increase her tolerance/metabolism. If she didn't drink lemon water would she need less THC ? How does using CBD or smelling pepper serve as an "antidote" to THC .



- This is supported by the observation that lemon juice, which normally contains small terpenoid titres, is traditionally enhanced in North Africa by the inclusion in drinks of the limonene-rich rind, as evidenced by the recipe for *Agua Limón* from modern Morocco (Morse and Mamane, 2001).
- The black pepper might offer the mental clarity afforded by pinene, sedation via myrcene and helpful contributions by b-caryophyllene