Role of Cannabis in the Management of Dementia-Related Neuropsychiatric Symptoms

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Objectives/Outline

- My practice
- Background
  - Dementia-related neuropsychiatric symptoms
  - Standard pharmacologic treaments
- Cannabis use for symptom management
  - Evidence for use
  - Adverse effects
  - Geriatric-specific considerations

My Practice

- Madsen Geriatrics Clinic – University of Utah
- QMP for our clinic
- Referrals from the Madsen Geriatrics provider group only
  - Work with PCP to comanage issue

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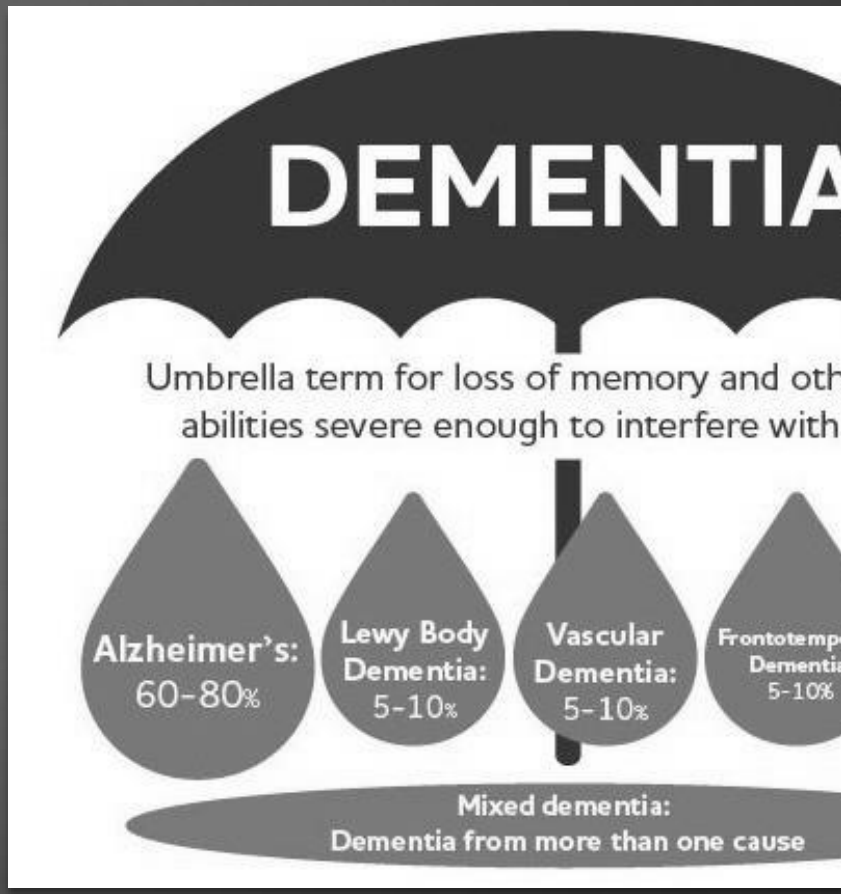
Dementia and Neuropsychiatric Symptoms

- Neuropsychiatric symptoms (NPS):
  - Sleep disturbance
  - Anxiety
  - Depression/apathy/poor appetite
  - Psychosis – hallucinations, delusions, paranoia
  - Agitation/irritability/restlessness
  - "Sundowning"
- More common with advanced dementia



Goals of Therapy

1. Delay disease progression
2. Improve quality of life
3. Reduce caregiver burden/stress
4. Maintain independence
5. insti

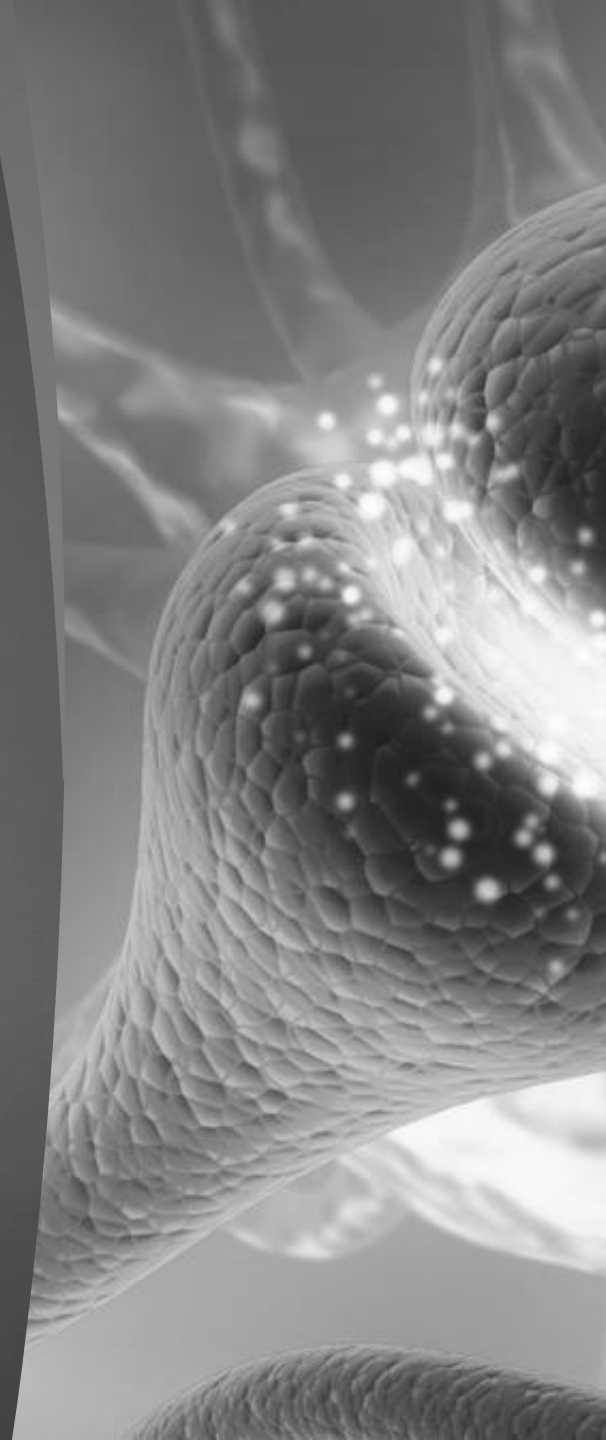
Typical Management

- Nonpharmacologic
- Cholinesterese inhibitors
- NMDA receptor antago
- SSRIs, SNRIs
- Antipsychotics
- Rarely benzodiazepines

What about canna

Physiology

- Endocannabinoid system and AD brains
  - CB2 receptors may be selectively overexpressed in plaque associated cells in AD brains[1]
  - Cannabidiol neuroprotective against plaque toxicity in vitro[2]
  - CB1 receptor expression decreased in AD brains[4]
    - CB1 receptor status correlated with degree of hypophagia
- Decreased cerebral acetylcholine in Alzheimer's disease (AD)
  - THC competitively binds/inhibits acetylcholinesterase[3]



Neuropsychiatric Symptoms

- Long story short: low quality evidence supporting medical cannabis use for neuropsychiatric symptoms of dement

Neuropsychiatric Symptoms

- Canadian Review:[6]
  - 12 primary studies
  - 4 showed statistically significant improv NPS
  - 8 did not show any difference
    - 5 RCTs, 1 case series, 2 case studies

Neuropsychiatric Symptoms

Prospective cohort study[7]

- Significant improvement in:
  - Agitation, disinhibition, irritability, abhorrent motor movements, nighttime behavior disorders
  - Caregiver burden scores
- 28 days
- Doses up to 7.5mg THC twice daily

Case series[8]

- Significant improvement in nighttime behaviors and agitation
- 14 days
- 2.5mg THC at night

RCT[9]

- Increased weight/BMI
  Avg 7lbs, 3% BMI increase
  2.5mg THC BID
- 84 days

Data Limitations

- Small study sizes
- Very few studies
- Conflicting results and concl
- Many variables that are diffi control for

Adverse Effects

- In most studies, adverse effects were m
  - Worsening neuropsychiatric symptoms, p
  - Sedation
  - Gait instability
- Minimal in comparison to prescription m
  - Antipsychotics – black box warning for d
  - SSRIs – hyponatremia, sedation, GI, wors
  - Benzos – cog impairment, fall risk

Geriatric Specific Considerations

- Sensitivity to medications
  - Start low, go slow
- Side effect monitoring
  - Focus on gait, sedation
- Safety, supervision
  - Lock boxes
  - Caregiver involvement
- What matters most?

My Approach

Referral

Consultation visit

- Geriatric assessment
  - Goals of therapy/care
  - Symptom assessment
  - Concomitant medication use
  - Gait assessment
- Risk/benefit discussion
- Discuss lack of evidence

Prescription per PMP

- I can't help but give my own guidance
  - Start low, 1-2.5mg qHS, uptitrate as needed

Follow ups

- Adverse effects, dosing guidance

References

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