

## Cannabis for treatment of severe agitation in a patient with Alzheimer's dementia

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**Abstract:** First patient is an 80 year old woman with chronic back pain and dementia from Alzheimer's disease. Family reports that her long term memory was good, but with significant decline in short term memory. She would sleep for large portions of the day, and then wake up at night with difficulty returning to sleep. She would struggle with feeling worried and scared - could happen throughout the day, but mornings were the most difficult. Family has also noted worsening agitation - especially if triggered by being reminded of her memory problems, dementia diagnosis, or physical limitations such as being bedridden. The agitation behaviors escalated over time - including yelling and berating family, becoming physically aggressive, and throwing objects (including bodily fluids) at caregivers. Family describes many attempts at distraction and redirection, but ultimately reports that only the passing of time would eventually calm her.

Medications tried included donepezil, alprazolam, and mirtazapine - none of which seemed to help these symptoms significantly. The mirtazapine helped some with sleep, but then she began to wake at night with more frequent nightmares.

Family sought care from a cannabis nurse, and after education and guidance decided to start a regimen of gummies with 1:1 delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD) twice daily, a tincture of cannabidiolic acid (CBDa) daily, and a tincture of cannabigerol (CBG) daily. They would also use an edible with CBD/THC in a 20:1 ratio as needed for pain, anxiety, or agitation. After starting this regimen, the family reported that she was now sleeping through the night without nightmares or waking. She did continue to sleep frequently during the day, but no differently than before - and the family reported no worsening confusion or euphoric "high" while awake. Only side effect that they noted was dry eyes. Most importantly to them - they reported no further episodes of agitation and aggression, and that her anxiety was "90% better," and described a much improved quality of life for both the patient and the caregivers.

A second patient is an 85 year old gentleman with metastatic prostate cancer, severe shoulder pain from bone mets. He was using Tylenol and Tramadol for the pain. He was staying long term at a skilled nursing facility and was having severe agitation at night where he would get extremely confused, wouldn't sleep and would constantly try to get out of bed, or leave. His family started him on a regimen of CBDa, daily TCH edibles, and topical CBD/THC cream for his shoulder pain. They noticed a significant improvement in his nocturnal symptoms - with less confusion and agitation and much better sleep hygiene. He eventually passed away from prostate cancer, but per the family it was a calm and peaceful passing without agitation or pain.

A third patient was an 80 year old man with OCD, anxiety disorder, seizure disorder, recurrent falls, and Alzheimer's. He would frequently get anxious and agitated with the staff at his long term memory care unit. Confusion and getting out of bed at night was contributing to his frequent falls. His family started him on a regimen of a CBD/THC spray (4mg of each) twice daily. They then reported a noticeable improvement in his anxiety and agitation symptoms as well as improved sleep.