Medical Marijuana Reduces Alzheimer’s-like Symptoms in Mice

By

Jayne B. Stearns

SEO: medical marijuana, Alzheimer’s disease, tetrahydrocannabinol, THC,

Category: News/Health and Fitness

The use of marijuana has made consistent gains following its legislative approval for medical use and even recreational use in thirty-three states as well as the District of Columbia. Unfortunately, there has been little solid scientific research on its efficacy for specific medical issues because it is still illegal on the federal level, a complication that prohibits researchers from seeking any federal funds to support further research.

And although legal dispensaries are proliferating as fast as McDonalds did across the nation in the 60’ and 70’s, most banks are insured by the FDIC and will not allow monetary transactions to occur using debit or charge cards. Therefore, most dispensary purchases are cash only.

Most of the benefits publicized from using the substance have been anecdotal or reported by researchers in other countries. Last week, some of that research led by Dr. Yvonne Bouter and her team at the University Medical Center Goettingen in Germany, revealed an interesting twist that could have an impact on Alzheimer’s treatment in the near future. Those results were reported at the Society for Neuroscience meeting in San Diego last Tuesday.

The study

The study using mice, suggests that the cannabinoid THC - the same ingredient that gives users the 'high' feeling - may reduce the effects of Alzheimer's disease.

The body also produces its own cannabinoid chemicals. They play a significant role in regulating pleasure, memory, thinking, concentration, body movement, awareness of time, appetite, pain, and the senses (taste, touch, smell, hearing, and sight).

The researchers treated mice that had been genetically altered to develop Alzheimer’s disease, with only one of the 100 cannabinoids within the plant, a synthetic form of tetrahydrocannabinol (THC), for six weeks. The mice that received the treatment performed as well as healthy mice on a memory test, while mice that received a placebo lost the ability to recall a location. Mice treated with THC had 20 percent less Alzheimer's plaques and performed better on spatial memory tests. They also showed fewer signs of inflammation damage and lost fewer brain cells.

Apparently, marijuana can help to diminish the symptoms of Alzheimer’s, but can also impair memory and learning in healthy individuals, at least in mice.

Physiologically, a substance called amyloid beta builds up on the brains of Alzheimer's sufferers overtime. These so-called plaques are thought to interfere with the function of brain cells and are considered the classic signal of the disease.  Scientists have also noted that Alzheimer's sufferers lose brain mass.

It is unclear what the amount of THC the German scientists gave to the mice they studied, but it may shed light on how marijuana can be used to manipulate and even improve Alzheimer's symptoms in the future. To date, experience with marijuana is outpacing solid scientific investigation and the scientific community has some catching up to do.

RESEARCH

1. Effects of cannabidiol and tetrahydrocannabinol treatment on memory function, neuron loss and molecular signature in a mouse model of Alzheimer’s disease. *Neuroscience*. M. E. SICHLER, J. WILTFANG, M. J. LÖW, C. BOUTER, T. A. BAYER, \*Y. BOUTER;   
   1Mol. Psychiatry, Dept. of Psychiatry and Psychotherapy, 3Dept. of Nuclear Med., Univ. Med. Ctr. Göttingen, Goettingen, Germany. November 6, 2018. <https://www.abstractsonline.com/pp8/#!/4649/presentation/19562>

# 2. Active Ingredient In Marijuana Reduced Alzheimer's-Like Effects In Mice. NPR. November 7, 2018. <https://www.npr.org/sections/health-shots/2018/11/07/665283718/active-ingredient-in-marijuana-reduced-alzheimers-like-effects-in-mice>