Role of Cannabinoids in Brain Health of NFL Players

AJEM attends 2020 Vision Player Networking Event during Super Bowl week as NFL players learn more about the important role that cannabinoids may have on brain health.

Miami, FL—National Football League (NFL) players learned more about the important role that cannabinoids may play in chronic pain management and brain health at the Twenty Twenty Vision Annual Player Networking Event.[1] *AJEM* was on-site at the event, which was held during Super Bowl week in Miami, Florida.

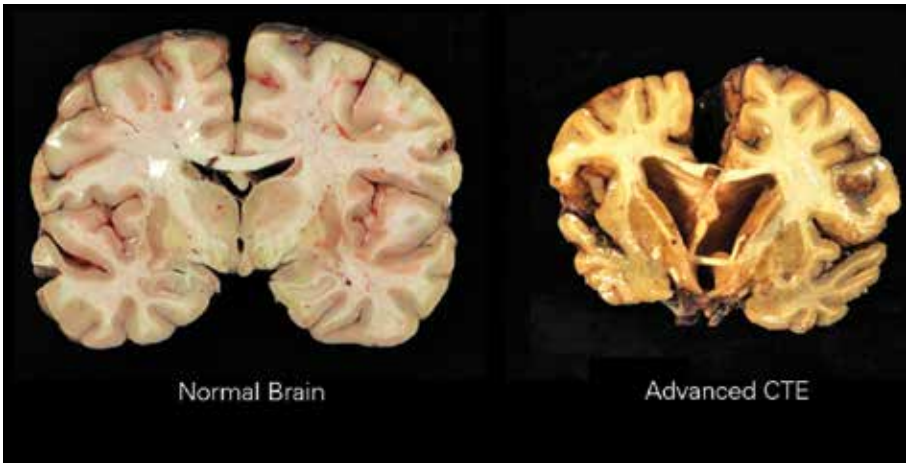

Image showing normal brain and brain with advanced chronic traumatic encephalopathy (CTE).

Photocredit: *Boston University Chronic Traumatic Encephalopathy Center, Wikimedia Commons.*

Softened Marijuana Policies for NFL Players

The focus on cannabinoids came on the heels of an announcement by Major League Baseball in December that marijuana will no longer be on its list of banned substances. The NFL may be following suit soon. Team owners have already approved a proposed collective bargaining agreement with players that would protect them from facing game suspension for testing positive for marijuana and will implement changes to testing protocols, including a 2-week testing window instead of 4 months.[2]

One thing is certain: Doctors across the country are in agreement that NFL players are at increased risk for chronic traumatic encephalopathy (CTE), after a seminal report on the topic was published in *the Journal of the American Medial Association* by Anne McKee, MD, Director of Boston University's CTE Center.[3] In the largest study of its kind, and a collaborative effort between the US Department of Veteran Affairs and Boston University's CTE Center, researchers examined the brains of deceased professional, semiprofessional, college, and high school football players. Of the 111 NFL player brains examined, 110 (99%) showed positive CTE pathology. The authors noted that accumulations of amyloid-β, α-synuclein, and TDP-43 were common in the brains of cases with severe CTE pathology.

Cannabis for Brain Injury

As former and current NFL players urge the league to allow cannabis to be used as a potential treatment for pain management and head trauma, research is getting a boost as major grants recently have been awarded to Harvard University's Phytomedicines and Medical Cannabis Institute, as well as others. Additionally, researchers like Sara Jane Ward, PhD, Assistant Professor of Pharmacology at Temple University's Lewis Katz School of Medicine in Philadelphia, are leading a research lab exploring the effects of cannabis on pain in animal studies.[4]

"Currently our research results in animal models of pain, stroke, and traumatic brain injury continue to excite us regarding the potential for CBD to alleviate brain inflammation and related behavioral consequences such as pain and cognitive impairment," Dr. Ward told *AJEM*. "Given these promising results and the relative safety of CBD, what is greatly needed now are trials in patients, including athletes, to determine how our laboratory results will translate to people," she added.

Mounting evidence from other animal studies suggest that CBD can act as a neuroprotective factor, thereby preventing damage to the brain. Japanese researchers found that stroke damage was lessened in mice who were treated with cannabidiol. Specifically, the authors hypothesized that the neuroprotective effect of cannabidiol may be related to increased blood flow through the serotonergic serotonin 5-hydroxytriptamine1A receptor.[5]

AJEM will continue to follow emerging research showing that professional athletes who experience concussion, acute pain, and chronic pain may benefit from cannabinoids.

References

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