Testing for chronic traumatic encephalopathy among former professional football players

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A new study showed that positron emission tomography (PET) with the radiotracer (18F)-Flortaucipir (FTP) to detect hyperphosphorylated Tau

(p-tau) may not be appropriate for diagnosing chronic traumatic encephalopathy (CTE) neuropathologic changes in former professional American-style football players. The study is published in *Journal of Neurotrauma*.

Aaron Baggish, MD, from Massachusetts General Hospital, and co-authors, conducted a study that compared former professional players to age-matched male control participants who did not have repetitive head impact exposure. There were no significant differences in (18F)-FTP uptake among former players compared to control participants. Among the players, there were no associations between objective measures of neurocognitive functioningand (18F)-FTP uptake

"The absence of increased [18F]-FTP uptake in brain regions previously implicated in CTE among former professional ASF players compared to controls questions the utility of [18F]-FTP PET for clinical evaluation in this population," concluded the authors.

"My congratulations to Dr. Dhaynaut, Dr. Grashow, and colleagues for performing a rigorous and well-executed study of (18F)-Flortaucipir PET in former professional American football players," says David L. Brody, MD, Ph.D., editor-in-chief of *Journal of Neurotrauma*. he negative results are important, and not surprising given the well-known differences between the abnormal tau folds seen in Chronic Traumatic Encephalopathy compared to those seen in Alzheimer's disease and other tauopathies. I am especially impressed by the rigor of the study design."

More information: Maeva Dhaynaut et al, Tau Positron Emission Tomography and Neurocognitive Function Among Former Professional American-Style Football Players, *Journal of Neurotrauma* (2023). DOI: 10.1089/neu.2022.0454