

Neuropathology tied to dementia ID'd in football players who had CTE

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(HealthDay)—White matter rarefaction, arteriolosclerosis, and

dorsolateral frontal cortex (DLFC) neurofibrillary tangles (NFTs) are independently associated with dementia among older men who played football and had chronic traumatic encephalopathy (CTE), according to a study published online Aug. 5 in *JAMA Neurology*.

Michael L. Alosco, Ph.D., from the Boston University Alzheimer's Disease Center and CTE Center, and colleagues examined the correlation of white matter rarefaction and [cerebrovascular disease](#) with dementia in 180 deceased men older than 40 years who had played football and were neuropathologically diagnosed with CTE.

The researchers found that 120 of the men had dementia prior to death. Moderate-to-severe white matter rarefaction and arteriolosclerosis occurred frequently (46.6 and 47.2 percent, respectively), while infarcts, microinfarcts, and microbleeds did not. More years of play correlated with more severe white matter rarefaction and greater phosphorylated tau accumulation in a simultaneous equations regression model controlling for age and race. Correlations were noted for white matter rarefaction and DLFC NFTs with dementia. No correlation was seen for arteriolosclerosis and years of play, but there was an independent association for arteriolosclerosis with dementia.

"Increased understanding of comorbid contributors to the pathogenesis and symptom profile of CTE is imperative to fully diagnose, treat, and prevent this progressive brain disease," the authors write.

Several authors disclosed financial ties to the pharmaceutical, medical device, and sports industries.

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