



Progression of tau pathology within cholinergic nucleus basalis neurons in chronic traumatic encephalopathy: A Chronic Effects of Neurotrauma Consortium study

Purpose

To examine brain changes that take place in Veterans and athletes with chronic traumatic encephalopathy (CTE).

Participants

Eighteen deceased athletes and Veterans with a history of repeated mTBI.

How was the study conducted?

The brains of the participants underwent autopsy. The researchers staged evidence of CTE and examined other brain changes.

Findings

Increased age of the individual, and increase in years since repeated mTBI, were correlated with higher stages of CTE. Neurofibrillary (NFT) changes correlated with CTE and increased numbers of NFT correlated with a higher state of CTE.

Military Impact

The findings from this study could have applications to military personnel who have repeated mTBIs, because this could be a risk factor for CTE and suggest that altering the formation of NFT pathology is a target for drug discovery.

Mufson E.J., Perez S.E., Nadeem M., Mahady L., McKee A.C. Progression of tau pathology within cholinergic nucleus basalis neurons in chronic traumatic encephalopathy: A Chronic Effects of Neurotrauma Consortium study. (2016.) Brain Injury, 30(12): 1399-1413. PubMed:27834536 PubMed Central: PMC5348250

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