Alzheimer disease and epilepsy: a new perspective

Based on observations [1, 3, 4] and preliminary data we hypothesize that hidden epileptic processes are comorbid with the pathomechanism of Alzheimer Disease, at least in a subset of AD patients.

Some preliminary observations supporting this idea:

- AD and epilepsy are appear jointly with higher probability than expected by chance.
- Besides the slow cognitive deterioration during AD, there are sudden “convulsive events”. We hypothesize, that some seizure-like activities could be the hidden cause of these “convulsive events”.
- There are preliminary observations, that antiepileptic treatment significantly ameliorates AD as well.

Based on previous knowledge in regard to the pathomechanisms of these two diseases from molecules to brain regions, we propose clinical, experimental and modeling studies to understand the causal relationship between AD and epilepsy.

More importantly, we can search for markers indicating cases for promising antiepileptic treatments and the optimal way/drugs for this treatment.

References


