

Is suspected non-amyloid pathology (SNAP) a pre-clinical state of AD?

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As more diagnostic tools are used to investigate Alzheimer's disease (AD), more questions arise about what is AD? An alternative, "unbiased", biomarker "labeling scheme independent from any one clinically defined diagnostic scheme" is creating a second frame for the research. A direct conflict between the old and the new research frames is the potential of Alzheimer's disease with dementia but without plaques ("suspected non-amyloid pathology", referred to as SNAP). It was found recently that 40% of cognitively normal old subjects show at least one abnormal neurodegenerative biomarker and most of these subjects had SNAP - no plaques but abnormalities reminiscent of AD. The SNAP subjects do not have the same genetic dependency on the apolipoprotein alleles as AD and a longitudinal study found that SNAP progresses more slowly compared to similar subjects with plaques. So is SNAP a pre-clinical state of AD? If it is, SNAP might elucidate the origins of AD. If it is not, we might find out what AD is not. SNAP is useful in either case. Or perhaps it is all a statistical anomaly. After all, we are looking for AD in cognitively normal subjects.