

New Classification for Alzheimer's Dementia

An article written in Internal Medicine News introduces a new method of classifying Alzheimer's Dementia. It is called the A/T/N system. A is for Amyloid, T is for Tau, and N is for neurodegeneration. The classification relies on the presence or absence of each component. These can be tested using a positron emission tomography (PET) scanner or cerebrospinal fluid (CSF) sampling through a lumbar puncture. The former is non invasive and the latter is invasive. US physicians tend to use the former and British physicians tend to do the latter. Current methods of classification are the National Institute on Aging-Alzheimer's Association (NIAA) and the International Working Group (IWG).

The problem with current research may be as much in defining the proper population to study. The two recently failed studies in Alzheimer's Dementia may be due to including patient's who do not have the proper classification. Therefore, current therapy may not be acting on the proper target such as Amyloid and Tau proteins.

A	T	N	NIAAA	IWG
-	-	-	Dementia	Undefined
-	-	+	Intermediate probable	Undefined
-	+	-	Undefined	Undefined
-	+	+	Probable	Undefined
+	-	-	1 Preclinical	Asymptomatic at risk
+	-	+	2 High likelihood	Typical AD
+	+	-	2 MCI	
+	+	+	3 AD	Undefined

PET

A=Amyloid

T=Tau

N=18F-flourodeoxyglucose

CSF

A=Amyloid beta42

T=Phosphorylated tau

N=Tau total

[1] Sullivan, Michele G, "Alzheimer's classification system relies on biomarkers", Internal Medicine News, March 1, 2017, p 16.