IS AMYLOID IMAGING REALLY HELPFUL IN DIAGNOSING AD? YES

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Recent developments in medical imaging today allow a valid quantification of cerebral amyloid deposition in vivo, which is considered a core pathology of Alzheimer's disease. In recent discussions on the diagnostic value of these procedures, the validity of the imaging test has often been confused with the validity of the diagnostic information or the amyloid-hypothesis in general. In this context the detection of amyloid-deposition in subjects without major cognitive impairment by means of amyloid-imaging has sometimes been misused as an argument presumably proving the malfunction of this biomarker. However, totally independent from and long before the existence of amyloid-imaging tools, it has been well-accepted that the underlying neuropathologies of Alzheimer's disease start many years ahead of the onset of cognitive symptoms. In so far, the problems remaining are rather directed towards the question on the therapeutic consequences of an early prediction of impending Alzheimer' disease. This will only be solved with the advent of disease-modifying therapies. But even today, amyloid-imaging may play an important role in definite and differential diagnosis of symptomatic dementia, in prediction/exclusion of Alzheimer's disease in subjects with mild cognitive impairment and as an inclusion criterion for therapy trials. Clinicians and imaging experts will have to adopt a new imaging concept, providing information on a certain pathophysiological condition rather then a diagnosis of a manifest symptomatic disease.