DOES THE CONCEPT OF CONCOMITANT NEURODEGENERATIVE DISEASE HAVE ANY INFLUENCE ON CLINICAL PRACTICE AND THERAPY?

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Most dementias are underlie by a primary neuropathological entity such as Alzheimer's disease or cerebrovascular changes, together with a series of other contributing entity. Each one of the co-existing entities may modify the clinical presentation and the prognosis. Even cases showing a typical presentation may harbor more than one pathology in the brain, especially in older individuals.
With the advent of advanced techniques to detect the molecular signature of the dementia in vivo, such as PET tracers, biomarkers for detecting the commonest proteins involved in neurodegenerative diseases are becoming available for the clinical practice. However, caution should be use in interpreting the results. Although deposits of beta-amyloid are indicative of an underlying Alzheimer's disease, it does not rule out the presence of overlapping pathologies. For instance, about 10% of frontotemporal dementia patients have co-existing Alzheimer's disease and a positive PIB-PET, or about 15% of Alzheimer's disease patients also harbor pathological TDP-43 inclusions in the brain, particularly in areas responsible for memory control. Finally, microvascular brain disease lower the threshold for clinical expression of dementia and it is often seen in older adults. When available, treatment should address the different co-occurring pathologies to be effective.