Braak and Braak Staging for Alzheimer dementia

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The silver technique discovered by Bielschowsky was first used by Dr Alios Alzheimer and became the first to describe Neurofibrillary Tangles that develop in the course of this progressive neurodegenerative illness which was named after Dr Alzheimer. The Neuropathological staging of Alzheimer's disease related Neurofibrillary tangles was originally described by in 1991 by Braak & Braak post-mortem on thick sections (100um) using silver staining technique and reflects the progress of the disease in a stereotypical fashion in a topographical expansion of the lesions. Since Alzheimer's disease is a progressive illness there is an increase in the extent of brain involvement rather than qualitative increase in the neurofibrillary pathology.

The neuron to neuron spread is described by the Braak & Braak 6 stages . This staging corelates with cognitive decline and is important for epidemiological purposes.

The stages are as follows

1. Stage I Lesions seen in the transentorhinal region , subcortical nuclei like locus coeruleus, magnocellular nucleus of the basal forebrain but absence of cortical involvement .
2. Stage II Lesions extend into the entorhinal area, particularly the superficial cellular layer.
3. Stage III Lesions extent into the neocortex of the fusiform, lingual gyri
4. Stage IV The disease process progresses more widely into the neocortical association area.
5. Stage V The neocortical pathology extends in a fanlike manner in the frontal, superolateral and occipital directions and reaches the peristriate region
6. Stage VI .The pathology reaches the secondary and primary neocortical areas and in the occipital lobe extends into the striate areas. Most areas of the neocortex are severely affected