

Neuroimaging diagnostic workup in Parkinsonian syndromes: always DAT SPECT first? Pro

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Imaging of dopamine transporters (DAT) in the striatum in the brain using single photon emission tomography (SPECT) is a well established method to distinguish neurodegenerative from non-neurodegenerative parkinsonism's. In neurodegenerative parkinsonism's the dopaminergic cells with projections to the striatum degenerate, resulting in a decline of dopamine transporters and loss of signal on the SPECT scan. It is a useful clinical tool that can detect neurodegeneration early in the disease process. Therewith it is often a good first step to help the clinician in the diagnostic process, e.g. to answer the question whether a patient has essential tremor or suffers from neurodegenerative Parkinsonism. During this session, the advantages and limitations of DAT SPECT will be discussed, including scan technique, analysis method, correlation with clinical measures, and suitability for particular clinical questions, costs, and possibility to use the method for follow-up.