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123-Ioflupane SPECT/CT: Image Interpretation
A Closer Look at the DaT Scan using Four Case Studies:
Normal, Type I, II, III

Lisa A. Kilejian, MD, MS; Somali C. Gavane, MD; Lale Kostakoglu, MD
Division of Nuclear Medicine, Department of Radiology, Mount Sinai Hospital, New York City, New York

Abstract
Introduction: Dopamine transporter imaging with I123-ioflupane is a robust and simple technique that can sensitively detect or rule out degeneration of presynaptic striatal dopaminergic nerve cells. It can differentiate presynaptic parkinsonian syndromes from essential tremor, drug induced parkinsonism and psychogenic parkinsonism.

In this case series, we will present examples reflecting the clinical questions addressed by DaT scan and the impact of DaT scan on the improvement of the diagnostic accuracy and detection of disease. We will also emphasize the role of the DaT scan in treatment planning and the monitoring of the disease process with a case example.
Furthermore, we will discuss the patterns of abnormal scans with case examples to help avoid clinical dilemmas.
For example: 65 year old man with tremors of right hand. DaT Scan demonstrated virtually absent uptake bilaterally affecting putamen and caudate nucleus.

Discussion:

1. Review the anatomy, pathophysiology and imaging findings of 123 Ioflupane SPECT(DaT scan)

2. Discuss Parkinsononian syndromes: Parkinson's disease and other diseases in this syndrome

3. Literature Review of DaT scans