GE Healthcare

Using the Movement Disorder Society (MDS) Clinical Diagnosis Criteria

In 2015 and 2018, the MDS developed Clinical Diagnostic Criteria for Parkinson's Disease and for Clinically Established Early Parkinson's Disease, respectively

The initial step for both clinical diagnostic models is to diagnose the patient with parkinsonism[1,2]:

Does the patient present with bradykinesia in combination with rest tremor, rigidity, or both?			
Bradykinesia	✓	✓	✓
Rest Tremor	✓		✓
Rigidity		✓	✓

Following a diagnosis of parkinsonism, the MDS Clinical Diagnostic Criteria includes absolute exclusion criteria which, if present, rule out diagnosis of clinically established early Parkinson's disease (PD) and clinically established PD

Normal functional neuroimaging of the presynaptic dopaminergic system is included in the MDS absolute exclusion criteria[1,2]*

*The criteria do not imply that the MDS requires or recommends dopaminergic functional imaging for diagnosis.

2015 MDS absolute exclusion criteria for Parkinson's disease (PD)[1]

1. Unequivocal cerebellar abnormalities, such as cerebellar gait, limb ataxia, or cerebellar oculomotor abnormalities (eg, sustained gaze-evoked nystagmus, macro-square wave jerks, hypermetric saccades)
2. Downward vertical supranuclear gaze palsy or selective slowing of downward vertical saccades
3. Diagnosis of probable behavioral variant frontotemporal dementia or primary progressive aphasia, defined according to consensus criteria within the first five years of disease
4. Parkinsonian features restricted to the lower limbs for more than three years
5. Treatment with a dopamine receptor blocker or a dopamine-depleting agent in a dose and timecourse consistent with drug-induced parkinsonism
6. Absence of observable response to high-dose levodopa despite at least moderate severity of disease
7. Unequivocal cortical sensory loss (ie, graphesthesia, stereognosis with intact primary sensory modalities), clear limb ideomotor apraxia, or progressive aphasia
8. Normal functional neuroimaging of the presynaptic dopaminergic system. (Note: This criterion does NOT imply that dopaminergic functional imaging is required for diagnosis nor does the MDS Clinical Diagnostic Criteria imply that this should be performed in diagnosing PD. If no imaging has been performed, this criterion does not apply.)
9. Documentation of an alternative condition known to produce parkinsonism and plausibly connected to the patient's symptoms, or the expert evaluating physician, based on the full diagnostic assessment, feels that an alternative syndrome is more likely than PD



2018 MDS absolute exclusion criteria for clinically established early PD[2]

1. Unequivocal cerebellar abnormalities, such as cerebellar gait, limb ataxia, or cerebellar oculomotor abnormalities (eg, sustained gaze-evoked nystagmus, macro square-wave jerks, hypermetric saccades)
2. Downward vertical supranuclear gaze palsy or selective slowing of downward vertical saccades
3. Diagnosis of probable behavioral variant frontotemporal dementia or primary progressive aphasia
4. Parkinsonian features restricted to the lower limbs
5. Treatment with a dopamine receptor blocker or a dopamine-depleting agent in a dose and timecourse consistent with drug-induced parkinsonism
6. Absence of observable response to high-dose levodopa despite at least moderate severity of disease
7. Unequivocal cortical sensory loss (ie, graphesthesia, stereognosis with intact primary sensory modalities), clear limb ideomotor apraxia, or progressive aphasia
8. Normal functional neuroimaging of the presynaptic dopaminergic system
9. Gait impairment requiring regular use of a wheelchair
10. Severe dysphonia/dysarthria (speech unintelligible most of the time) and/or severe dysphagia (requiring soft food, nasogastric tube, or gastrostomy feeding)
11. Inspiratory respiratory dysfunction: either diurnal or nocturnal inspiratory stridor and/or frequent inspiratory sighs
12. Severe autonomic dysfunction: Either a) orthostatic hypotension – orthostatic decrease of blood pressure within three minutes of standing by at least 30 mm Hg systolic or 15 mm Hg diastolic, in the absence of dehydration, medication, or other diseases that could plausibly explain autonomic dysfunction, or b) severe urinary retention or urinary incontinence (excluding long-standing or small amount not due to prostate disease, and must be associated with erectile dysfunction)
13. Recurrent (>1/year) falls due to impaired balance
14. Disproportionate anterocollis (dystonic) and/or contractures of hand or feet
15. Absence of any of the common nonmotor features of disease. These include sleep dysfunction (sleep-maintenance insomnia, excessive daytime somnolence, symptoms of REM (rapid eye movement) sleep behavior disorder), autonomic dysfunction (constipation, daytime urinary urgency, symptomatic orthostasis), hyposmia, or psychiatric dysfunction (depression, anxiety, or hallucinations)
16. Otherwise-unexplained pyramidal tract signs, defined as pyramidal weakness and/or clear pathologic hyperreflexia (excluding mild reflex asymmetry and isolated extensor plantar response)
17. Bilateral symmetric parkinsonism. The patient or caregiver reports bilateral symptom onset with no side predominance, and no side predominance is observed on objective examination
18. Documentation of an alternative condition known to produce parkinsonism and plausibly connected to the patient's symptoms, or the expert evaluating physician, based on the full diagnostic assessment, feels that an alternative syndrome is more likely than PD

References: 1. Postuma RB, Berg D, Stern M, et al. MDS clinical diagnostic criteria for Parkinson's disease. *Mov Disord*. 2015;30:1591-1601.
2. Berg D, Adler CH, Bloem BR, et al. Movement Disorder Society criteria for clinically established early Parkinson's disease. *Mov Disord*. 2018;33:1643-1646.

November 2019 JB49742US(1) Printed in USA