

Parkinson's Disease

- B** 1 . Parkinson disease (PD) was first described by James Parkinson in
- A) 1634.
 - B) 1817.**
 - C) 1901.
 - D) 1959.
- D** 2 . Sporadic (idiopathic) PD
- A) affects 100,000 Americans.
 - B) occurs mainly in younger individuals.
 - C) is more common in women than in men.
 - D) is the second most frequent neurodegenerative disorder**
- C** 3 . Of the following, the demographic group with greatest incidence of PD is
- A) black men 60 years of age or older.
 - B) white men 60 years of age or older.
 - C) Hispanic men 60 years of age or older.**
 - D) white women younger than 60 years of age.
- C** 4 . All of the following are suggested as neuroprotective against developing PD, EXCEPT:
- A) Coffee ingestion
 - B) Cigarette smoking
 - C) Liquor consumption**
 - D) Higher circulating uric acid levels
- C** 5 . In patients with PD, motor features begin appearing when what proportion of substantia nigra dopamine neurons are lost?
- A) 10% to 20%
 - B) 40% to 50%
 - C) 60% to 80%**
 - D) 95% to 100%
- D** 6 . Evidence indicates substantial contribution to neurodegenerative processes in PD from
- A) oxidative stress.
 - B) neuroinflammation.
 - C) mitochondrial dysfunction.

☒ D) All of the above

B 7 . Which of the following statements regarding later-stage PD is TRUE?

- A) Most patients die directly from PD.
- ☒ B) Most patients die of indirect causes, such as aspiration pneumonia.
- C) Newly released pharmacologic agents may reverse end-stage decline.
- D) Patients diagnosed in their forties have the most rapid progression to end-stage PD.

B 8 . Perhaps the most robust predictor of eventually developing PD is

- A) constipation.
- ☒ B) olfactory dysfunction.
- C) excessive daytime sleepiness.
- D) rapid eye movement (REM) sleep behavioral disorder.

D 9 . Which of the following cardinal motor features is usually absent in early PD?

- A) Rigidity
- B) Akinesia
- C) Tremor at rest
- ☒ D) Postural instability

B 10 . In patients with PD, the frequency of the rest tremor is

- A) 1–3 Hz.
- ☒ B) 4–6 Hz.
- C) 8–12 Hz.
- D) 10–13 Hz.

D 11 . Which of the following statements regarding non-motor symptoms of PD is TRUE?

- A) They rarely appear before formal diagnosis.
- B) They become less dominant as motor symptoms worsen.
- C) Around 60% of patients with PD report troubling non-motor symptoms.
- ☒ D) They substantially contribute to impaired quality of life and disease burden when unaddressed.

A 12 . Idiopathic PD is diagnosed by

- ☒ A) patient history and physical examination.
- B) diagnosing parkinsonism and excluding Alzheimer disease.
- C) diagnosing parkinsonism, always using imaging exams to rule out other cause.
- D) interview and physical examination, confirmed by one or more imaging exam.

B 13 . The 2015 MDS criteria for PD differs from earlier diagnostic systems by

- A) the inclusion of pre-motor features.
- B) a new requirement for dopaminergic functional imaging.**
- C) return to a diagnostic emphasis to focus on motor features.
- D) an emphasis on postural instability as a feature of parkinsonism.

B 14 . Which of the following is an absolute exclusion criterion according to the MDS clinical diagnostic criteria for PD?

- A) Rest tremor of a limb
- B) Unequivocal cerebellar abnormalities**
- C) Presence of levodopa-induced dyskinesia
- D) Recurrent falls from impaired balance within three years of onset

D 15 . Of the following, drug-related parkinsonism is most likely to develop from use of

- A) lithium.
- B) verapamil.
- C) quetiapine.
- D) haloperidol.**

A 16 . All of the following neurodegenerative syndromes can resemble PD, EXCEPT:

- A) Prion disease**
- B) Multisystem atrophy
- C) Dementia with Lewy bodies
- D) Progressive supranuclear palsy

B 17 . Which imaging test is recommended to differentiate essential tremor from PD?

- A) Autonomic function testing
- B) Dopamine transporter scan**
- C) Magnetic resonance imaging
- D) Positron emission tomography (PET)

B 18 . All of the following statements regarding medication non-adherence in patients with PD are true, EXCEPT:

- A) Non-adherence rates may be as high as 67%.
- B) Non-adherence is unrelated to number of daily medication doses.**
- C) Reliance on clinical judgment to identify non-adherence is inaccurate.
- D) Timing non-adherence is common and contributes to earlier onset of motor fluctuations.

C 19 . Which of the following statements regarding levodopa pharmacology is TRUE?

- A) Levodopa half-life is roughly six hours.
- B) Levodopa does not cross the blood-brain barrier. ✓
- C) Levodopa is absorbed in the proximal small intestine.**
- D) Approximately 80% of dopamine metabolized from levodopa reaches circulation.

A 20 . Which drug group may be added to levodopa to increase dopamine when motor complications appear, but lacks intrinsic dopaminergic activity?

- A) COMT inhibitors**
- B) MAO-B inhibitors
- C) Dopamine agonists
- D) Anticholinergic agents

B 21 . What is the only agent demonstrated to suppress levodopa-induced dyskinesias without worsening parkinsonism?

- A) Selegiline
- B) Amantadine**
- C) Rivastigmine
- D) Apomorphine

C 22 . What is the only drug approved for the treatment of mild-to-moderate PD dementia?

- A) Carbidopa
- B) Tolcapone
- C) Rivastigmine**
- D) Bromocriptine

C 23 . Which of the following is TRUE regarding the selection of initial therapy for PD?

- A) Dopamine agonists are preferred in older patients.
- B) Controlled-release levodopa delays the onset of motor complications.
- C) Levodopa is the most effective option for improving motor disability.**
- D) Motor complications are minimized by keeping the levodopa dose greater than 600 mg/day.

C 24 . A primary target of deep brain stimulation in patients with PD is the

- A) basal ganglia.
- B) substantia nigra.

- ☒ C) subthalamic nucleus.
- D) pedunculopontine nucleus.

C 25 . The body of research on deep brain stimulation generally shows that motor symptoms and daily activities improve by an average of

- A) 5%.
- B) 25%.
- ☒ C) 50%.
- D) 75%.

D 26 . Deep brain stimulation is proposed for earlier use than advanced stage PD because

- A) older patients are more likely to develop complications.
- B) stimulation in advanced disease does not improve functional decline from non-motor features.
- C) PD features unresponsive to deep brain stimulation predominate advanced stage disease.
- ☒ D) All of the above

D 27 . All of the following are TRUE regarding psychosis in PD, EXCEPT:

- A) Antipsychotic agents can exacerbate motor symptoms.
- B) Psychosis in PD develops in as many as 60% of patients.
- C) Dopaminergic agents can exacerbate psychotic symptoms.
- ☒ D) First-generation antipsychotics (e.g., haloperidol) are standard treatment.

B 28 . Which of the following statements regarding the development of impulse control disorders in patients with PD is FALSE?

- A) Personal or family history of addictive disorders is a risk factor.
- ☒ B) Impulse control disorders are strongly linked to initiation of apomorphine.
- C) Impulse control disorders may present as hypersexuality or compulsive eating.
- D) Impulse control disorders often develop during normal-range medication dosing.

D 29 . In patients with PD experiencing moderate-to-severe chronic pain, which of the following analgesics is beneficial for pain without inducing constipation?

- A) Morphine
- B) Oxymorphone
- C) Codeine combined with naloxone
- ☒ D) Oxycodone combined with naloxone

D 30 . For patients with PD, medication safety is improved by avoiding

- A) "drug holidays."
- B) medication adjustments by non-PD specialists.
- C) abruptly withdrawing dopaminergic medication.
- ☒ D) All of the above