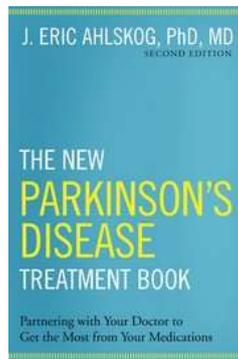


Perceiving Parkinson's

The Neurologist's Assessment (Day 35)

Mayo Clinic neurologist Eric Ahlskog, a Parkinson's specialist and author of "The New Parkinson's Disease Treatment Book," views the diagnosis of Parkinson's as a **wake-up call**, even calling it an opportunity for a person to mobilize their resources and "attack" the condition head-on. Yet before this can happen, it's essential for the neurologist to **get the diagnosis right**. When determining whether a person has Parkinson's, most neurologists proceed in a step-wise manner.

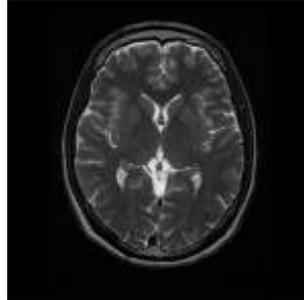


Eric Ahlskog's book - highly recommended.

First, the **history**. The neurologist and patient ought to get to know each other a bit. The patient will then relate one or more troublesome **motor symptoms** such as tremor, bradykinesia, rigidity, or postural instability. The neurologist will need to pry a little to find out about the more covert **non-motor symptoms** - loss of smell and constipation nearly always occur before the motor symptoms, but so may autonomic and enteric dysfunction, mood disorders, sleep disruption, and pain; cognitive difficulties generally appear in the latter stages of Parkinson's. As usual, it is necessary to find out about the patient's medical history, social situation, family history, medications, and allergies.

Second, the **examination**. The neurologist may note that the patient has an **expressionless face** and **soft, indistinct, hurried speech**. Usually, there will be a **tremor** in an arm or leg at rest. It is essential to note the presence of **bradykinesia**, as denoted by hand or finger movements that get slower and smaller with repeated alternating motions, as well as **micrographia** (handwriting that gets slower and smaller with continued writing). Invariably, there will be **rigidity** that the neurologist can feel by passively moving the patient's elbows and wrists. Crucially, the neurologist will observe the patient as they walk for signs of **postural instability** which could result from one or more of **camptocormia** (an abnormally stooped body posture), **hesitation** (a pause before walking), **loss of arm swing on one side**, **small shuffling steps**, **freezing** (a sudden stop during walking), and **festination** (steps become progressively smaller and faster). Finally, the lying and standing blood pressure should be assessed to see if there is any **postural hypotension** (when a person's blood pressure falls upon standing).

Third, the **investigations**. Unlike many other neurological conditions, investigations are of limited use in Parkinson's - the blood tests and brain scans are usually normal.



Brain scans are usually normal in Parkinson's.

Fourth, the **diagnosis**. This is the important bit; the neurologist collates the findings from the history, examination, and investigations to arrive at a diagnosis, or at least a list of differential diagnoses. If the previous steps have been done correctly, the diagnosis of Parkinson's will be straightforward. However, the neurologist must be sure they have excluded Parkinson's mimics such as **Parkinson-plus syndromes** ("cousins" of Parkinson's - multiple system atrophy, progressive supranuclear palsy, and the corticobasal syndrome), **Lewy body dementia** (characterized by fluctuating alertness and visual hallucinations), **normal pressure hydrocephalus** (excess cerebrospinal fluid in the brain), **vascular parkinsonism** (multiple strokes), **medication effects** (largely due to antipsychotics and antiemetics), and **essential tremor**. There should be nothing in the history, examination, or investigations to suggest a Parkinson's mimic, although it's not always easy to tell.

Fifth, the **management plan**. Typically, this is based on **the severity of the motor symptoms** and involves the use of **dopaminergic oral medications** that prolong, mimic, or replace the body's dopamine. If the motor symptoms are mild, a weaker medication such as selegiline may suffice. If the motor symptoms are moderate, a stronger medication such as ropinirole or levodopa may be required. If the motor symptoms are severe, robust doses of levodopa are necessary. Moreover, the **non-motor symptoms must not be ignored**; different strategies may be required for these.

Lastly, the neurologist may tell a patient newly diagnosed with Parkinson's that despite the inherent uncertainty associated with the long-term prognosis, **quality of life can remain high for many years and life expectancy is essentially normal**. How successfully a patient achieves such a high quality, long life surely depends in part on their neurologist, but the lion's share of success arguably depends on how much that patient learns about their Parkinson's, and acts on that knowledge.

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References

(1) Ahlskog. 2015. The New Parkinson's Disease Treatment Book. Oxford University Press.