Parkinson's disease Focussed Examination

Note: the instructions may be non-specific e.g. 'examine this patient with a tremor', 'examine this patient's gait and then proceed' or 'examine this patient neurologically'. In this case, approach by asking a few focussed questions (if allowed) or inspecting for tremor/gait abnormalities and then proceed with the relevant focussed examination to elicit all the signs of the condition.

Focussed questions
What happened when you first presented with this condition?
How is it affecting you?
When is your tremor worst?
Do you have other problems, such as problems with balance or co-ordination?
Do you have problems with buttons and shoe laces?
Turning over in bed at night?
Getting in and out of your car?

Examining for tremor
1. Resting tremor (rest hands on lap on ulnar border and close eyes and count down from 20)
2. Postural tremor (hold arms out)
3. Action tremor (finger nose test)

Introduction

- **W**ash hands, **I**ntroduce self, ask **P**atients name & DOB & what they like to be called, **E**xplain examination and get consent

General Observations

General

- Walking aids etc

Tremor

- Note if obviously visible tremor (if not, ask the patient to close their eyes and count down from 20 to distract them)
  - asymmetrical resting pill rolling tremor (4 - 8 Hz)
  - begins distally (fingers, hands, forearm), can involve chin and mouth
  - reduced with finger to nose testing
  - tremor can be accentuated by patient clenching contralateral hand or counting serial 7's

Gait and Posture

- Ask them to walk up and down room
  - shuffling gait (reduced stride length precedes)
  - hesitant: difficulty initiating and turning (multiple steps)
  - festinating gait: patient walks faster and faster as to not fall over
  - lack of arm swing (early sign due to increased tone)
  - unsteadiness (propulsion/retropulsion - tendency to fall forward or backwards)
- Observe posture while walking
  - stooped posture

NOW…work down the body

Face

Face

- Observe face
  - "hypomimia" (mask like face): blank and expressionless face with decreased blinking
  - drooling

Eyes

- Glabella tap (Myerson's sign= blinking fails to cease with continued tapping)

Speech

- Say a sentence about themselves and what they've done today or describe the room they are in
  - hypophonia (quiet)
  - soft, faint and hard to understand
  - slow thinking

Focussed Upper Limbs

- Tone (+ augment increased tone by getting patient to distract them self by moving contralateral arm up and down)
  - led pipe = increased tone; cogwheel rigidity = tremor superimposed on increased tone
- Bradykinesia
  - open and close thumb and index finger like snapper as fast as possible (lack of amplitude and slow and not in sync)
  - play imaginary piano (slow)
  - open and close big imaginary doorknob (difficulty pronating and supinating)

Focussed Lower Limbs

- Bradykinesia (heel tap)
  - lack (or decay) of amplitude and slow and not in sync

Extras

- Function
    - See writing (micrographia)
    - Undo buttons
- Exclude Parkinson's plus syndromes
    - Eye movements: up and down (progressive supranuclear palsy = vertical limitation)
    - Eye movements: Side to side (nystagmus = multisystem atrophy)

To complete

- Thank patient and cover them
- "To complete my exam I would look for…
    - Cerebellar signs (multisystem atrophy)
    - Posture blood pressure (significant drop may be present in multisystem atrophy)
    - Mini-mental state exam (Lewy body dementia)
    - See drug chart (parkinsonism drugs)"
- Summarise and suggest further investigations you would do after a full history

<u>Parkinsonism causes</u>
Parkinson's disease
Anti-dopaminergic drugs (e.g. anti-psychotics, metoclopramide)
Parkinson's plus syndromes
Wilson's disease

<u>Parkinson's plus syndromes</u>
Progressive supranuclear palsy: vertical limitation, axial rigidity
Multi-system atrophy: cerebellar signs, autonomic problems
Corticobulbar degeneration

<u>Parkinson's disease quadrad</u>
Tremor
Rigidity
Bradykinesia
Postural instability