DIAGNOSTIC RECOMMENDATIONS

History

Ask about:
- ★ nature of the symptoms in the arm or leg (tremor, stiffness, feeling of decreased strength, clumsiness, pain symptoms or difficulty walking?);
- ★ duration and course of the symptoms (unilateral or symmetrical start?);
- ★ severity of the symptoms and effects on daily life;
- ★ use of drugs: anti-psychotics, anti-emetics (metoclopramide, cinnarizine, meclozine), SSRIs, venlafaxine, bupropione and valproic acid can cause (reversible) parkinsonism;
- ★ symptoms related to Parkinson's disease, such as depressive symptoms and cognitive disorders.

Physical examination

Evaluate:
- ★ tremor: have the patient extend hands and arms or drink or pour a glass of water. A (symmetrical) posture and movement tremor may be signs of an essential tremor;
- ★ walking pattern: a stooped, slow, shuffling walking pattern and (asymmetrical) reduction in arm swinging are consistent with Parkinson's disease. A wide gait can be consistent with (atypical) parkinsonism;
- ★ motor skills: ask the patient to drum on the table with the thumb and forefinger of both hands or to alternate between pronation and supination of the forearm (left-right difference in speed, amplitude and regularity, tires more quickly?). Ask the patient to write down a sentence. Micrography, an irregular pattern whilst writing and spontaneous movements such as "counting money" are consistent with Parkinson's disease;
- ★ tone (rigidity) and strength of the arm or leg muscles with passive and active movements. Increased tone and cogwheel phenomenon are consistent with Parkinson's disease;
- ★ posture (stooped?) and facial expression (facial mask?).

Evaluation

Consider the diagnosis of Parkinson's disease with:
- ★ slow movements (bradykinesia); AND
- ★ at least one of the following symptoms:
  - resting tremor;
  - rigidity;
  - postural instability (without signs of visual, vestibular, cerebellar or proprioceptive disorders).

Characteristics that support the diagnosis are:
- ★ a unilateral presentation and continued asymmetrical presentation on the side where the disease presented;
- ★ a progressive course;
- ★ absence of other causes of a hypokinetic rigidity syndrome (refer to differential diagnosis).

Differential diagnosis includes:
- ★ parkinsonism caused by drugs, vascular parkinsonism or other (rare) causes;
- ★ tremor caused by an *essential tremor* (refer to FTR Essential tremor, www.nhg.org), *side effects of medication* (lithium, levothyroxine, sodium valproate, bronchodilators, antidepressants) or worsening of a *physiological tremor* (withdrawal symptoms, hyperthyroidism, hypoglycaemia, smoking, excessive use of caffeinated drinks) or *intention tremor* (cerebellar disorders).

DIAGNOSTIC RECOMMENDATIONS

Management for suspected parkinsonism or Parkinson's disease

★ If possible, stop or change the medication in the case of suspected parkinsonism related to medication. If necessary, consult with the neurologist or treating specialist.
★ In the case of suspected Parkinson's disease or non-drug related parkinsonism, refer to a neurologist for diagnosis and treatment within six weeks.

Management during the course of Parkinson's disease

Treatment takes place in a collaboration between the neurologist, general practitioner and Parkinson's nurse. Monitor patients with Parkinson's disease at least once a year. Inform the neurologist or Parkinson's nurse about referral due to symptoms related to Parkinson's disease. Visit www.parkinsonnet.nl for a list of specialised care providers.

Role of the general practitioner

★ Detection of side effects and changes in the effectiveness or the use of medication.
★ Detection, diagnosis and treatment of new onset symptoms or conditions related to Parkinson's disease.
- Depressive symptoms:
  - evaluate the patient during the "on" phase;
  - it may be necessary for the neurologist to adjust the medication or to start dopaminergic medication;
  - consider tricyclic antidepressants or SSRIs for (severe) depression, but preferably not a long-acting SSRI and also avoid tricyclic antidepressants in the case of cognitive disorders.
- Dementia:
  - refer for neuropsychological testing if there is any doubt about cognitive function disorders (MMSE is probably less sensitive);
  - the initiation of treatment with cholinesterase inhibitors by the general practitioner is not recommended.
- Psychotic symptoms:
  - look for possible causes of delirium (such as a urinary tract infection, pneumonia, dehydration, electrolyte imbalance or hypoglycaemia) and treat these causes;
  - consult with the neurologist about adjusting the Parkinson's medication or the use of clozapine;
  - olanzapine, risperidone and typical anti-psychotics (such as haloperidol) are contra-indicated.
- Sleep disorders:
  - consider underlying causes such as side effects or a decrease in the efficacy of the medication, neuropsychiatric causes (depression, dementia), nocturia and specific sleep disorders such as REM sleep behaviour disorder or restless legs syndrome;
  - start with sleep hygiene advice;
  - in the case of sleep problems caused by motor limitations, adjustment of the Parkinson's medication, physiotherapy and occupational therapy can be useful;
  - refer to a sleep centre in the event of persistent symptoms.
- Falling:
  - make an inventory of the risk factor for falling: previous incidents of falling, motor problems, posture or balance problems (freezing), orthostatic hypotension, the use of (sedative) medication;
  - for advice on fall prevention, consult the CBO Guideline on Prevention of falling incidents in the elderly (www.cbo.nl).
- Problems with swallowing and slaver, weight loss, constipation, urinary disorders, sexual dysfunction, orthostatic hypotension or excessive sweating (refer to the NHG Guideline text for more information).

★ Intensifying and coordinating the care of patients in the final stage or palliative phase of the condition: if necessary, consult the general practitioner specialised in geriatric care or palliative care, a regional palliative team or a neurologist.
★ Detecting and discussing psychosocial problems (disease acceptance, relationship aspects, supporting capacity of partner or carer):
- inform patients about the patient organisation;
- advise the patient to consult the occupational health physician in the case of work-related problems;
- if necessary, refer to a psychologist or social worker.